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ar son na hAeráide & Comhshaoil**
Department of Communications,
Climate Action & Environment

National Broadband Plan: State Led Intervention

Lot 1C (Combined Area Lot)

Invitation to Submit Final Tender

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Important Notice

The Department of Communications, Climate Action and Environment ("**Department**") has prepared this Invitation to Submit Final Tender ("**ISFT**") for the sole purpose of inviting Final Tenders from the Bidders for the national broadband intervention project.

The information set out in the ISFT is being made available on condition that it is only used in connection with this Procurement and for no other purpose whatsoever. It is provided as a guide only and does not purport to contain all the information that a Bidder may require in connection with this Contract. In no circumstances shall the Minister, Department, its advisers, consultants, contractors and/or agents incur any liability or responsibility arising out of or in respect of the issue of the ISFT.

The information provided in the ISFT is offered in good faith for the guidance of Bidders but no warranty or representation, express or implied, is given as to the accuracy or completeness of any of the information set out in the ISFT or on which the ISFT is based or issued pursuant to the ISFT.

The Minister, Department and its advisers shall not under any circumstances whatsoever have any liability for the accuracy, adequacy or completeness of the ISFT or for any other written or other communication made available during the course of the Procurement process including, without limitation, for any loss, damage, cost or expense incurred or arising as a result of reliance on such information or communication. Where information in the ISFT is cited from a third party source, such information has not been independently verified.

The Department reserves the right to amend the ISFT, its requirements and any information contained herein at any time by notice, in writing, to the Bidders.

The Department reserves the right to take such steps as it considers appropriate, including (but not limited to):

- changing the basis of, or the procedures (including the timetable) relating to, the tender process;
- rejecting any, or all, of the Final Tenders;
- not inviting a Bidder or tenderer to proceed further;
- not furnishing a Bidder or tenderer with additional information; or
- abandoning the competition.

Nothing in the ISFT is, or may be relied upon as, a promise or representation as to the Department's ultimate decision in relation to the award of the Contract(s) which are the subject of this competition, or as a representation of fact or promise as to the future. None of the information contained in the ISFT shall impose any legal obligations on the Department or Minister.

The Minister, Department, its advisers, consultants, contractors and/or agents do not accept any responsibility for the legality, validity, effectiveness, adequacy or enforceability of any documentation executed, or which may be executed, in relation to the Project.

The Department / Minister shall not be obliged to appoint the Bidders to undertake the Project and reserves the right not to proceed with the award process and to withdraw from the process at any time. No contract to be entered into with a successful Bidder will contain any representation or warranty from the Department in respect of the PIM, ITPD, ISDS, ISRDS or ISFT.

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In this important notice, references to the ISFT includes all information contained in the ISFT, any accompanying documentation, and/or information and/or opinions made available during the remainder of the Procurement process by or on behalf of the Department, its advisers, consultants, contractors, servants and/or agents in connection with the ISFT or the Project including, without limitation, the information made available in response to any queries.



Each Bidder's downloading or acceptance of delivery of the ISFT constitutes its agreement to, and acceptance of, the terms set forth in this important notice. Any breach of the terms of this important notice may result in the exclusion of a Bidder from this Procurement, at the Department's sole discretion.



1 Introduction

1.1 Purpose

This ISFT Volume 4 (Financial Requirements) Lot 1C (Combined Area Lot) forms part of the ISFT. It sets out the Department's requirements for:

- completion of the Project Financial Model Template (PFMT);
- the Project Financial Model;
- the Project Price Book and Appendix 1 of Schedule 5.2 (Wholesale Prices, Price Benchmarking Rules and Wholesale Product Benchmarking Rules);
- the Project Cost Model;
- the Financial Memorandum; and
- the Cost Memorandum.

These are to be submitted as part of the Bidder's Final Tender.

The purpose and scope of these financial requirements are described in the sections that follow.

This ISFT Volume 4 (Financial Requirements) Lot 1C (Combined Area Lot) should be read in conjunction with ISFT Volume 2 (Evaluation Methodology).

1.2 Defined Terms

Unless otherwise set out in this ISFT Volume 4, the capitalised terms in this volume have the same meaning as given to them in the ISFT Volume 1 (Instructions) and Volume 3 (Contract and Schedules).

Cost Memorandum means the memorandum to be submitted by a Bidder as part of this Procurement process in accordance with section 7 of this ISFT Volume 4.

Drop Connection Wireless means the section of the Network defined between the User Network Interface (UNI) on the WCPE in the End User's Premises and the base station (and includes, as the context so admits or requires, any part or parts of it).

Drop Connection Wireline means the section of the Network defined between the User Network Interface (UNI) on the WCPE in the End User's Premises and the Distribution Point (DP) (and includes, as the context so admits or requires, any part or parts of it).

Financial Memorandum means the memorandum to be submitted by a Bidder as part of this Procurement process in accordance with section 6 of this ISFT Volume 4.

Funding Plan has the meaning given to it in ISFT Volume 2 (Evaluation Methodology).

Model Auditor is an appropriately qualified entity to carry out the audit and provide an opinion in respect of the Bidder's Project Financial Model during the Preferred Bidder process.

National Backhaul means the section(s) of the Network between the Point of Handover interface point (NNI) in the NBPCo Network and the Retail Service Provider (RSP) Network interface point or one or more other Point of Handover interface point (NNI) (and includes, as the context so admits or requires, any part or parts of it).



Permitted Expenditure Connect means the Permitted Expenditure related to connections.

Permitted Expenditure Passed means the Permitted Expenditure related to network deployment.

Project Cost Model is the cost model required to be developed and submitted by a Bidder as part of this Procurement process in accordance with section 4 of this ISFT Volume 4.

Project Financial Model is the financial model required to be developed and submitted by a Bidder as part of this Procurement process in accordance with section 2 and 3 of this ISFT Volume 4 and incorporating the PFMT in Annex A.

PFMT or Project Financial Model Template (PFMT) is the excel template included in Annex A to this ISFT Volume 4.

Project Price Book are the worksheets tabbed 'green' in the PFMT.

Public Spending Code refers to Circular 13/13 The Public Spending Code: Expenditure Planning, Appraisal & Evaluation in the Irish Public Service - Standard Rules & Procedures.

1.3 Preferred Bidder stage

At the Preferred Bidder stage, the Project Financial Model and Project Cost Model are to be finalised for the following areas:

- Sufficient breakdown and transparency should be provided to ensure that the Deployment Claw-Back Amount (and the relevant constituent components of that Deployment Claw-Back Amount, including Deployment Claw-Back Benefit and total Subcontractor Deployment Claw-Back Amounts) can be calculated;
- The finalisation of subcontractor pricing following the completion of the Bidder's tendering process; and
- The deployment area cost template is to be completed to facilitate the Build Related Contract Assumptions and Post Build Contract Assumptions. The costs included in this template shall reconcile with the relevant Project Cost Model costs per the Final Tender.

As set out in paragraph 4.2.3 of Volume 1, the Contract price (i.e. total Subsidy Payments) set out in the Final Tender as at that date is the maximum price and will not increase thereafter, other than in accordance with the provisions of the Contract or the ISFT.



2 Project Financial Model

2.1 Purpose

Each Bidder **must** submit a Project Financial Model as part of its Final Tender. For the avoidance of doubt, some of the requirements in respect of the Project Financial Model may be satisfied in supporting model(s) which are submitted as separate files, provided that the outputs in the supporting model(s) clearly link to the inputs in the Project Financial Model.

The purpose of the Project Financial Model is to present, in a robust and highly transparent manner, the Bidder's forecast costs, revenues, financial performance and financial statements for the Project for the full duration of the Contract.

The Project Financial Model is to provide the Department with full details of the Bidder's forecasts for, inter alia:

- The total Subsidy Payments (in nominal and net present value terms) required by the Bidder to achieve a normal commercial rate of return on their investment in the Project;
- The breakdown and timing of those Subsidy Payments over both the Deployment Period and the remainder of the Contract Period;
- The Capital Expenditure for the deployment of the Bidder's solution and any replacement capital costs required over the duration of the Contract, including the phasing and timing of those costs;
- The operating costs associated with the Bidder's solution both during and after the Deployment Period, through to the end of the Contract;
- The Wholesale Products that the Bidder projects to make available over the duration of the Contract and the associated Wholesale Prices for those Wholesale Products;
- The levels of Take-Up that the Bidder projects to achieve within the Intervention Area for High Speed Broadband and for each Wholesale Product, the timeframe over which these levels of Take-Up are projected to be achieved, and the anticipated levels of churn;
- The revenue that the Bidder projects to earn over the full duration of the Contract, including revenues derived from all Wholesale Products including both committed and non-committed Other Permitted Wholesale Products;
- The financial performance that the Bidder projects to achieve over Contract Years 1 to 10, and over the full duration of the Contract, including for example project and equity internal rates of return;
- Other key financial metrics such as the average capital cost per Premises Passed and Premises Connected; and
- The funding solution consistent with the Funding Plan proposed by the Bidder, to ensure that the Project is adequately financed and supported throughout the Project life.

The Department is seeking to use the Project Financial Model to obtain a detailed understanding of the Bidder's financial and pricing forecasts for the Project, as outlined above. Each Bidder should therefore ensure that any data that informs or feeds into the development of their Project Financial Model are included and clearly identified within the input worksheets of their Project Financial Model, and that they accurately reflect any forecasts. Any data that is input into the Project Financial Model should be accounted for and explained in the Financial Memorandum.

For the avoidance of doubt, each Bidder is required to provide a Project Financial Model that must transparently show the basis and calculation of the forecast costs, revenues, financial performance and financial statements at the Project level, including the actual cost of line items and the NBPco margin charged on these costs shown separately.



The Project Financial Model must provide transparency and granularity of all inputs to enable the Department to:

- Understand the key cost and revenue drivers and their behaviours;
- Understand the financial flows within the Project (i.e. where Subsidy Payments and external funding is forecast to be required), and the financial flows between NBPco and Key Subcontractors involved in delivering the Project (in conjunction with the Project Cost Model);
- Validate the relationship between different elements of the Project Financial Model, for example the forecast Take-Up assumptions and the deployment programme / Connection Payment Milestones as set out in Schedule 5.1 (Subsidy Payments) of the Contract;
- Test the sensitivity and robustness of the Bidder's commercial proposal (including rate of return and compliance with funding terms) to changes in key assumptions; and
- Comply with funding constraints and obligations (e.g. third party debt, Government and ERDF requirements) and other audit and reporting requirements as appropriate.

The Department will review the Project Financial Model and it will be required that the Bidder will provide assistance/guidance (as required) with the interpretation of the financial inputs and outputs contained within the Project Financial Model.

Each Bidder must ensure that its Project Financial Model is complete and that it directly and accurately reflects their complete Final Tender, and all of the assumptions associated with their Final Tender. Any assumptions, errors and omissions will be at the risk of the Bidder.

2.2 General Requirements

The Department's general requirements for the Project Financial Model are as follows:

- The Project Financial Model will show calculations and outputs on a per Quarter (or more granular) basis over the term of the Contract;
- Each Bidder must use Microsoft Excel 2013 or fully compatible versions for its Project Financial Model;
- Each Bidder must comply with generally accepted accounting principles and Irish taxation law;
- Each Bidder must comply with spreadsheet modelling best practice;
- No circular references or balancing numbers and no input numbers are allowed in the calculation worksheets;
- No formulas/macros that link to external files are allowed;
- No hidden rows, columns, cells or worksheets are allowed;
- No hard coded data should be included within the calculation and output worksheets;
- Project Costs and Project Revenues must all be included in the Project Financial Model in accordance with Appendix 4 (Costs, Permitted Expenditure and revenues) to Schedule 5.1 (Subsidy Payments) of the Contract; and
- Inputs to the "change log" worksheet should be completed with details of any changes that are made by Bidders to the PFMT issued by the Department. In addition, if Bidders are using calculation sheets from previous versions of the PFMT, details of any amendments to the calculations in these sheets should also be provided in the "change log" worksheet.



2.3 Specific Requirements

The Department's specific requirements for the Project Financial Model are set out as follows.

2.3.1 PFMT

The Project Financial Model must incorporate the latest PFMT provided by the Department and in accordance with the instructions set out in section 3, and populate the cells shaded in yellow by linking to other worksheets in its Project Financial Model.

Each Bidder is permitted to add further rows/columns to the PFMT or to amend worksheets as required to fit with its solution. Any such changes should be clearly detailed in the Change Log.

2.3.2 Project Cost Model

The Network related capital and operating cost inputs for the Project Financial Model must be derived from the Project Cost Model, which is described in section 4.

2.3.3 Capital Expenditure for Deployment

The following are guidelines for forecast Capital Expenditure for deployment to be included in the Project Financial Model (and outlined in further detail in section 4, Project Cost Model):

- Each Bidder must provide full details of their forecast Capital Expenditure, including Connection costs, for the full deployment of their technical solution within the Intervention Area over the term of the Contract;
- Each Bidder must use the Build Related Contract Assumptions (set out in Annex 6 of Schedule 6.2) when determining the Capital Expenditure included in the Project Financial Model.
- Each Bidder must clearly and separately identify the Capital Expenditures that are Eligible ERDF Expenditure and Permitted Expenditure;
- Each Bidder must provide an expected useful life for capital assets, to allow a depreciation schedule to be calculated over the 25-year term of the Contract. Each Bidder must also provide a schedule of replacement that reflects how the Bidder would replace assets during the Contract Period;
- Each Bidder must detail, in the Project Cost Model, its inflation assumptions for each capital cost element, and provide details of any other reasons for price escalation in their capital costs. The numbers inputted into the Project Financial Model should be inclusive of all price escalation assumptions over the term of the Contract;
- Each Bidder must also detail VAT assumptions for each Capital Expenditure line.

2.3.4 Capital Expenditure Breakdown

The following are guidelines for further breakdowns of forecast Capital Expenditure in the Project Financial Model (and outlined in further detail in section 4, Project Cost Model):

- Each Bidder must provide a breakdown of its forecast Capital Expenditure for establishing the Operational Environment, Secure Portal and Public Portal (including any related systems) and achieving the P1 Milestone (Operational Environment). This breakdown must present the forecast Capital Expenditure directly attributable to the establishment of these items.
- Each Bidder must also provide a breakdown of its forecast Capital Expenditure for Connections by reference to its forecast Take-Up.
- Each Bidder must provide a breakdown of all other forecast Capital Expenditure (i.e. excluding capital costs of initial deployment, establishing the Operational Environment, Secure Portal and Public Portal, and Connections), including reinvestment / replacement costs relating to Premises,



Connections and the Operational Environment, Secure Portal and Public Portal (including any related systems).

- Within each of the above breakdowns, the Bidder must clearly and separately identify the Capital Expenditures that are Eligible ERDF Expenditure, Permitted Expenditure Passed, Permitted Expenditure Connect and any non-Permitted Expenditure.

2.3.5 Addressable Base

The PFMT currently breaks down the addressable market into the following seven categories:

- Residential;
- Residential – holiday homes;
- Small business;
- Medium business;
- Enterprise;
- Mixed use small – farms;
- Mixed use small – other; and
- Strategic Community Points.

Bidders can change the categories to categories that reflect their approach to the Project and their revenues but the Department requires a level of granularity in order to assist it in its overall assessment of solutions. In addition, any changes to the categories should be clearly explained in the Financial Memorandum.

In the PFMT, each category will have different Wholesale Product requirements, which impact costs, revenues and take up assumptions. Residential customers are currently split into residential and holiday homes. Commercial Premises are currently split according to Eurostat's breakdown for SME's, into small business (1-49 employees), medium business (50-249 employees) and enterprise (>250 employees). Mixed-use points are currently split between farms and other.

Strategic Community Points, other mixed use Premises, and small, medium and large businesses together include:

- Hospitals;
- Schools;
- Garda stations;
- Post office;
- Locality type industrial; and
- Building group industrial.

Each Bidder should clearly show how it has adjusted the Premise numbers within the Premise Database (either in excel calculations or the Financial Memorandum) in order to derive the addressable base within the Intervention Area for each Lot.

2.3.6 Premises Passed and Connected

The following are guidelines for forecast Premises Passed and Premises Connected in the Project Financial Model:

- Each Bidder must present its forecasts of Premises Passed, and cumulative Premises Passed in the Intervention Area per Quarter. Each Bidder must also input specific dates at which it will



achieve each Deployment Payment Milestone, where a deployment Milestone is deemed to be achieved once a Milestone Achievement Certificate has been received by NBPco;

- Each Bidder must present its forecasts of Premises Connected, and cumulative Premises Connected, in the Intervention Area per Quarter and Take-Up forecasts. Take-Up forecasts should set out the forecast take-up for different Premise types and the forecast timing of when this Take-Up will be achieved; and
- Each Bidder must also present a breakdown of the forecast Premises Connected per Quarter, setting out the forecast number of Premises Connected by Premise type.

2.3.7 New Premises

- Each Bidder is required to provide a forecast of New Premises within the scope of the Intervention Area.
- Each Bidder must clearly show their assumptions and forecasts relating to the rate of growth (or otherwise) of Premise numbers (i.e. numbers of new Premises) within the Intervention Area over the term of the Contract. This should include the source of such forecasts (e.g. central statistics office, etc.).

2.3.8 Operating Costs

The following are guidelines for forecast operating costs in the Project Financial Model (and outlined in further detail in Section 4, Project Cost Model):

- Each Bidder must provide details of its operating costs over the duration of the Contract. Each Bidder must provide a breakdown of its operating costs, which shall as a minimum include the following categories:
 - Network maintenance;
 - Network operations;
 - Rental costs;
 - Network & wholesale costs; and
 - Non-Network overheads.
- Operating costs that take the place of what might otherwise be Capital Expenditure (e.g. cost of pole rental as opposed to cost of deploying new poles) must be categorised separately within operating costs so that the Department can undertake a full examination of the Bidder's forecast costs of Network Deployment. Each Bidder must clearly identify whether (and the extent to which) such costs fall within the definition of Permitted Expenditure;
- Each Bidder must use the Build Related Contract Assumptions (set out in Annex 6 of Schedule 6.2) and the Post Build Contract Assumptions (set out in Annex 5 of Schedule 6.2) when determining the operating costs included in the Project Financial Model.
- Each Bidder must provide full details of its forecast operating costs at the Project level;
- As noted above, Network related operating costs included in the Project Financial Model must be derived from the Project Cost Model, which is described in Section 4 Project Cost Model.
- The revenue and operating cost forecasts in a Bidder's Project Financial Model should provide an appropriate return over the Contract Period to show that the NBPco business is viable in accordance with the gap funded principle.

2.3.9 Project Price Book

The Project Price Book must set out for each Wholesale Product included in the Bidder's PFMT (including all Minimum Required Wholesale Products, Additional Required Wholesale Products, and both committed and non-committed Other Permitted Wholesale Products):



- The percentage of its overall connections which the Bidder forecasts will take each Wholesale Product; and
- The prices by Quarter for:
 - Initial Connection Charges for Existing Premises;
 - Initial Connection Charges for New Premises;
 - Disconnection charges;
 - Reconnection charges;
 - On-net churn charges; and
 - Monthly rental.

2.3.10 Revenue

Each Bidder must provide details of their forecast revenues over the term of the Contract. Each Bidder must provide a breakdown of its forecast revenue, which shall as a minimum include:

- Forecast revenues for Wholesale Products over the term of the Contract; and
- Forecast revenues for any other products over the term of the Contract under the requirements of Schedule 2.2 and Wholesale Prices in Schedule 5.2 of the Contract.

Further requirements in relation to the Project Price Book are included in Section 5 Project Price Book.

2.3.11 Subsidy Payments

The following are guidelines for the required Subsidy Payments in the Project Financial Model:

- Each Bidder must provide a breakdown of its forecast Subsidy Payments by type (see Schedule 5.1 of the Contract) for Contract Years 1 to 10, and for the full term of the Contract. This breakdown must present the forecast Subsidy Payments that are attributable to each phase of the deployment, and the forecast Subsidy Payments that are attributable to each Milestone within a phase (where relevant). This includes:
 - Deployment Milestone Payments;
 - Ongoing Capital Payments; and
 - Connection Milestone Payments.
- Each Bidder must size and profile its forecast Subsidy Payments in accordance with the rules set out in section 2.4.5 below.

2.3.12 Funding

The following are guidelines for the forecast funding in the Project Financial Model:

- Each Bidder must present the funding requirements for its solution, in terms of:
 - the forecast Subsidy Payments that the Bidder will require in order to bridge the gap between the Bidder's forecast cost of the Project and the investment that the Bidder will make on a normal commercial basis based on the forecast financial projections for the Project.
- Each Bidder must provide full details of its forecast sources and uses of funding throughout the Contract Period;
- In respect of the Bidder's own commercial investment, each Bidder must provide a detailed breakdown of:
 - The sources of funding to be accessed by the Bidder for its own investment in the project;



- Planned drawdowns, interest payments, other fees and capital repayments in relations to all debt or quasi equity solutions (senior, mezzanine, alternative lending, subordinated / convertible debt etc.); and
- Planned investments, dividends, capital redemptions in relation to all equity solutions.

In this regard, Bidders attention is drawn to section 3.4.4 of Volume 2 of this ISFT.

2.3.13 Terminal Value

Each Bidder is required to include within its Project Financial Model a forecast Terminal Value for the Project at the point of the Expiry Date equal to ten times the average annual EBITDA (excluding Subsidy Payments) over the final three years of the Contract Period, provided that this Terminal Value must not be less than zero.

This EBITDA multiple will be used in calculating the Terminal Value claw back in accordance with Schedule 5.1 of the Contract.

2.4 Subsidy Payments in ISFT Project Financial Model

2.4.1 Key principles¹

As described in section 5.3 of the PIM, the NBPco will be required to finance the design and deployment of the wholesale broadband Network and products.

The Department will pay Subsidy Payments to the NBPco, some of which will be paid during deployment and some of which will be paid over the operational duration of the Contract. The grant amount paid by the Department will be the minimum amount necessary for the NBPco to deliver the National Broadband Plan: State Led Intervention Project whilst also making an acceptable rate of return which reflects the level of risk borne by NBPco during deployment and during the operation of the Services.

The capital grant paid during deployment will be part funded by €75 million (euro) from the European Regional Development Fund (ERDF), which requires exchequer match funding of €150 million (euro).

The key principles that underpin the provision of the Subsidy Payments are as follows:

¹ Each Bidder should note that as the Project and Procurement is subject to State Aid clearance, it is possible that additional or refined requirements may be introduced with respect to the use of the subsidy. For instance, whilst currently it appears that there will be no specific restrictions on use of any Network funded through the subsidy, it cannot, at this point, be ruled out that restrictions may need to be imposed in order to secure State Aid clearance. The Department accordingly reserves the right to impose such restrictions as may be necessary or prudent, in the Department's view (at its absolute discretion), to secure a favourable State Aid decision.



Table 2.1: Key principles underpinning the provision of Subsidy Payments (as set out in PIM):²

Principle	Description
Minimum amount necessary	The Subsidy Payments are invested in the Project in accordance with the gap funding principle. This means that subsidy paid to the operator should be capital related and no greater than the amount of the investment costs that cannot be financed by the Project itself on a normal commercial basis i.e. Subsidy Payments should only be used to fund the gap between the commercially viable investment level (which is to be funded by the operator) and the investment required. NBPco bears the normal commercial risks for Wholesale Products.
Saving in Network build costs	The operator's capital investment should not be less than that included in the bid financial model. Any saving in Network build costs should be passed on to the State through a reduction in the Subsidy Payment (whilst ensuring that there remains a sufficient incentive on the operator to minimise Deployment costs).
Risk of cost overruns	The subsidy amount is capped at the Maximum Total Subsidy and the operator bears the risk of cost overruns ³ at the total contract level (which allows for overspends and underspends by milestone and by phase within the scope of the Contract).
Risk of lower net revenues	The subsidy amount is capped and the operator bears the risk that net revenues are lower than forecast, e.g. through lower than forecast Take-Up, lower than forecast revenue or higher than forecast operating costs.
Sharing of additional benefit	The State should receive an appropriate share of any additional financial benefits that are enabled or supported by the provision of the Subsidy Payment.
Contracted outcomes	The operator is contractually obliged to deliver the contracted outcomes for the contracted subsidy amount. The contracted outcomes include the coverage and speed commitments included in the Final Tender.

² The reference to the capped subsidy amount refers to the final subsidy amount set out in the Contract, subject to any increased subsidy paid pursuant to the terms of the Contract (e.g. as a result of a change under the change control procedure in the Contract).

³ Excluding cost increases specifically resulting from changes required to the Build Related Contract Assumptions assumed in the Project Financial Model.



Principle	Description
Change to contracted outcomes	The operator is contractually committed to delivering the outcomes included in the Final Tender. The operator is only able to request a change to the contracted outcomes in very limited circumstances, e.g. where the change relates to a Force Majeure Event.
Transparency	For Subsidy Payments to be appropriately applied to the Project in accordance with State Aid Guidelines and the Public Spending Code, the operator will be subject to significant transparency requirements specified in the Contract, including accounting separation.

2.4.2 Deployment Milestone Payments

The Deployment Milestone Payments will be paid to the NBPco on satisfactory completion of pre-defined deployment milestones and conditions that are defined in Schedule 2.3 and 5.1 of the Contract, and subject to the NBPco being in compliance with any additional funder requirements (e.g. ERDF).

The overriding principle is that a Deployment Milestone Payment will only be paid when the relevant milestone is achieved (as defined in Schedule 2.3 and Schedule 5.1).

Bidders are required to use the Build Related Contract Assumptions (set out in Annex 6 of Schedule 6.2) when determining the costs underpinning their Project Financial Model, which will impact the Deployment Milestone Payments calculated in the Project Financial Model. In practice, the Deployment Milestone Payments paid for M2 Milestone types and Ongoing Capital Payments may be adjusted either upwards or downwards from the values in the Project Financial Model based on changes required due to the Build Related Contract Assumptions during the Deployment Period, provided that the maximum net upward adjustment in the total cumulative Deployment Milestone Payments and Ongoing Capital Payments as a result of these Build Related Contract Assumptions shall not exceed the Contingent Deployment Subsidy, in accordance with Schedule 5.1 of the Contract.

2.4.3 Connection Milestone Payments and Additional Connection Milestone Payments

The Connection Milestone Payments will be paid to the NBPco on satisfactory completion of pre-defined Connection Payment Milestones that are defined in Schedule 5.1 of the Contract, and subject to the NBPco being in compliance with any additional funder requirements.

The overriding principle is that a Connection Milestone Payment will only be paid when the relevant Connection Payment Milestone is achieved (as defined in Schedule 2.3 and 5.1).

As set out in Schedule 5.1, Connection Milestone Payments will be indexed annually in accordance with actual movements in the European Union Harmonised Index of Consumer Prices subject to a floor of 0%. For the purpose of the ISFT evaluation, all Bidders are required to assume an annual indexation rate of 1.5% per annum for the first five years and 2% per annum thereafter for the purpose of calculating the Connection Milestone Payments.

Bidders are required to include in their PFMT the proportion of Connection Milestone Payments which are subject to indexation (PSI_{CMP}). This should be input into cell F37 on the 'Subsidy inputs' worksheet. Bidders should include calculations to demonstrate that the PSI_{CMP} is reasonable based on the extent to which the underlying components of Permitted Expenditure Connect are subject to indexation.

Additional Connection Milestone Payments will be paid to NBPco in the circumstances and up to the capped amount set out in Schedule 5.1. For the purposes of ISFT, Bidders should not include any Additional Connection Milestone Payments in their Project Financial Model.



2.4.4 Ongoing Capital Payments

The Ongoing Capital Payments will be linked to, and will commence on, satisfactory achievement of the Programme Level Milestone P4A.05. This provides an additional incentive for the timely deployment of the wholesale Network, as some of the Subsidy Payments during operations will be lost if a Programme Level Milestone is delayed. Ongoing Capital Payments will be subject to performance deductions in accordance with Schedule 5.1 of the Contract.

As set out in Schedule 5.1, Ongoing Capital Payments will be indexed annually in accordance with actual movements the European Union Harmonised Index of Consumer Prices subject to a floor of 0%. For the purpose of the ISFT evaluation, all Bidders are required to assume an annual indexation rate of 1.5% per annum for the first two years and 2% per annum thereafter for the purposes of the Ongoing Capital Payments. Bidders are required to use the Build Related and Post Build Contract Assumptions (set out in Annex 6 and Annex 5 of Schedule 6.2, respectively) when determining the costs underpinning their Project Financial Model, which will impact the Ongoing Capital Payments calculated in the Project Financial Model.

In practice, the Ongoing Capital Payments paid may be adjusted either upwards or downwards from the values in the Project Financial Model based on changes required by the Build Related Contract Assumptions and/or Post Build Contract Assumptions during the Contract Period. In respect of the Post Build Contract Assumptions, the maximum net upward adjustment in the total cumulative Ongoing Capital Payments shall not exceed the Contingent Post Deployment Subsidy, in accordance with Schedule 5.1 of the Contract.

2.4.5 Conditions relating to the value of the Subsidy Payments in the Project Financial Model

Each Bidder is required to structure the Subsidy Payments within its Project Financial Model in accordance with the conditions set out in Table 2.2.

For the avoidance of doubt, the conditions set out in Table 2.2 are for the purposes of the Procurement only. Any changes to or re-profiling of Subsidy Payments post contract award will be in accordance with the terms of the Contract and in particular Schedule 5.1 (Subsidy Payments) and Schedule 6.2 (Change Control Procedure).



Table 2.2: Conditions in relation to setting the value of Subsidy Payments in the Project Financial Model⁴

Subsidy Payment type (as defined in Schedules 2.3 and 5.1 of the Contract)	Constraints on total Subsidy Payments of this type in the Project Financial Model (as a % of Total Subsidy Payments or as a Euro amount, on a total or per annum basis)		
	Maximum total	Minimum total	
Deployment Milestone Payments	NPV to DMPs capped at the NPV of cumulative Permitted Expenditure.	No minimum	

⁴ Individual Subsidy Payments of each type are also to be included in the relevant table in Appendix 1, 2 and 3 of Schedule 5.1



Subsidy Payment type (as defined in Schedules 2.3 and 5.1 of the Contract)	Constraints on total Subsidy Payments of this type in the Project Financial Model (as a % of Total Subsidy Payments or as a Euro amount, on a total or per annum basis)		
	Maximum total	Minimum total	
Connection Milestone Payments	Sum of individual Connection Milestone Payments in the Project Financial Model, subject to the sum of all of the Connection Milestone Payments not exceeding the total of all Connection Milestone Payments set out in Appendix 2 to Schedule 5.1 (before indexation).	No minimum.	<p>A Connection Milestone Payment for every 1,000 first time connections up to the maximum level of first time connections projected by the Bidder in its Project Financial Model at Contract Award.</p> <p>The CMPs are subject to indexation in accordance with Schedule 5.1 of the Contract.</p> <p>The CMP rate will equal the average connection cost per premises (in January 2019 prices) set out in the Bidder's PFM at Final Tender.</p>
Ongoing Capital Payments (OCP)	No maximum, subject to the restrictions set out in respect of the Total Subsidy Payments below.	<p>From Network Deployment Complete, total cumulative Ongoing Capital Payments should not be less than [REDACTED] per annum in January 2019 prices.</p> <p>From the tenth anniversary of the Commencement Date, Ongoing Capital Payments should be set to [REDACTED]</p>	

* During the Contract Period this figure may be amended if one or more of the Contract Assumptions transpires to be inaccurate.



Subsidy Payment type (as defined in Schedules 2.3 and 5.1 of the Contract)	Constraints on total Subsidy Payments of this type in the Project Financial Model (as a % of Total Subsidy Payments or as a Euro amount, on a total or per annum basis)		
	Maximum total	Minimum total	
Total Subsidy Payments	The sum of all Subsidy Payments must not exceed the total Subsidy Payments required by the Bidder for the Project to be commercially viable (as evidenced by the Project Financial Model). The allocation between Deployment Milestone Payments and Ongoing Subsidy Payments should be sized to minimise the total Subsidy Payments. At no time during the Contract Period should the NPV of cumulative Subsidy Payments exceed the NPV of cumulative Permitted Expenditure.	N/A	N/A
Total Subsidy Payments by end of Deployment Period	N/A	If the total Subsidy Payments required by the Bidder are greater than €150 million, then the Bidder should seek to ensure that the Bidder is forecasting to claim at least that amount of Subsidy Payment by December 2023 in order to facilitate the Department's use of ERDF Funding.	

2.5 Sensitivity Analysis

Each Bidder must, as a minimum, run the sensitivities outlined in this section using its Project Financial Model.

These sensitivities should show the impact at the end of Contract Year 10 and at the end of Contract Year 25 on key metrics in the Project Financial Model including:

- Project internal rate of return;
- Equity internal rate of return;
- Total nominal value of Subsidy Payments
- Net present value of Subsidy Payments;



- Cost per Premises Passed;
- Cost per Premises Connected;
- Permitted Expenditure in accordance with Schedule 5.1;
- Eligible ERDF Expenditure in accordance with Schedule 5.4;
- Project Costs and Project Revenues;
- Non-permitted expenditure;
- Total capital investment by the Bidder (net of Subsidy Payments) (i.e. Additional NBPco Expenditure);
- Impact on financing including term of funding, covenant requirements and projected repayment dates;
- Claw back due to the Department (where applicable); and
- To the extent that NBPco requires additional funding for downside scenarios, the additional funding amounts, assumed sources, timing of additional funding and terms associated with the additional funding (if different to the terms associated with funding assumed for the base case).

General post financial close sensitivities

The following sensitivities should be provided assuming post financial close impacts (i.e. where the Subsidy Payment amounts have been fixed in the base case):

- Changes in average revenue per user ($\pm 10\%$);
- Changes in Take-Up ($\pm 10\%$);
- Deployment completion delays by 6 months and 12 months;
- Capital Expenditure decreases/increases ($\pm 10\%$);
- Operating expenditure decreases/increases ($\pm 10\%$);
- Take-Up is 10% lower and costs⁷ are 10% higher; and
- Take-Up is 10% higher and costs⁷ are 10% lower.

For the avoidance of doubt, these sensitivities are required to be run off the base case model i.e. on the assumption that the base case would be the Project Financial Model at contract award and that any sensitivities set out above would impact the Project Financial Model of NBPco during the Contract.

The Bidder should also run any other sensitivities that it applies as part of its own investment appraisal process. The outputs of all of these sensitivities must be detailed in the Financial Memorandum that is submitted with the Project Financial Model, as set out in section 6, along with any commentary as to how the sensitivities demonstrate robustness of the Financial Solution and/or any mitigating factors. The Department may also request a version of the Project Financial Model that reflects the sensitivities set out above or funder sensitivities. The Bidder must also describe in the Financial Memorandum any other sensitivity analysis it applies for investment appraisal and any other sensitivities required by funders.

⁷ All capital expenditure, operating expenditure and overheads



2.6 Model Audit

The Department will require an independent audit of the Project Financial Model and Project Cost Model and supporting models (Bidder's take up and/or revenue output calculations used within the Bidder's Project Financial Model) at the Preferred Bidder stage. The Preferred Bidder must, at its own expense and on a timely basis, instruct an independent Model Auditor to undertake this work and provide the associated opinion during the Preferred Bidder process. Prior to engaging the Model Auditor, approval of the Minister is required on:

- the proposed appointee (including record of experience);
- the proposed scope of the engagement (including the proposed form of the model audit opinion); and
- the level of professional indemnity insurance cover (which must provide [REDACTED] cover for the Department).

The Department must be provided with an opinion and supporting model audit report from such auditors stating that the model is suitable for use as set out in the Contract. This opinion, to which the Department will be a co-addressee and notice party, may result from the same independent review of the Project Financial Model, Project Cost Model and supporting models carried out to satisfy the Preferred Bidder's funders. The Preferred Bidder must accept the risk of the model audit resulting in an increase in the Subsidy Payments and will not pass on any additional costs to the Minister. Any savings in the Subsidy Payments as a result of the model audit will reduce the level of Subsidy Payments by 100% of those savings at Contract award.

For the avoidance of doubt, the Model Auditor will be required to have a duty of care to the Minister.

2.7 Additional points of note for a Bidder

The following points of note apply to a Bidder's Project Financial Model:

- While each Bidder is expected to clearly set out the inputs underlying their Project Financial Model, the Project Financial Model and/or the Subsidy Payments shall not be revised post contract award other than in accordance with Schedule 5.1 (Subsidy Payments) and Schedule 6.2 (Change Control Procedure) i.e. whether or not the forecasts in the Project Financial Model hold true is at the Bidder's risk (with the exception of the Contract Assumptions).



3 Project Financial Model Template (PFMT)

3.1 Introduction

The PFMT takes the form of proforma output sheets. Each Bidder is required to incorporate the PFMT provided by the Department, as set out in Annex A of this Volume 4, into its Project Financial Model and populate the cells shaded in yellow by linking to other worksheets in its Project Financial Model.

It is the responsibility of the Bidder to ensure that its Project Financial Model, Project Cost Model and any supporting models' meet all of the Department's requirements as set out in this ISFT Volume 4 and in Schedule 5.3 of the Contract.

The PFMT is intended to allow sufficient flexibility for a Bidder to input the relevant details for the Bidder's specific solutions. The completed PFMT must show the Bidder's proposed costings for its solution (based on the Contract Assumptions), as well as forecast revenues.

The Project Financial Model, Project Cost Model and any supporting models' included in the Bidder's Final Tender will, subject to any clarifications or related amendments at Preferred Bidder stage, be given contractual status for the selected Bidder (e.g. the Project Financial Model submitted with the Final Tender is expected to be the Master Project Financial Model referred to in Schedule 5.3 of the Contract etc.).

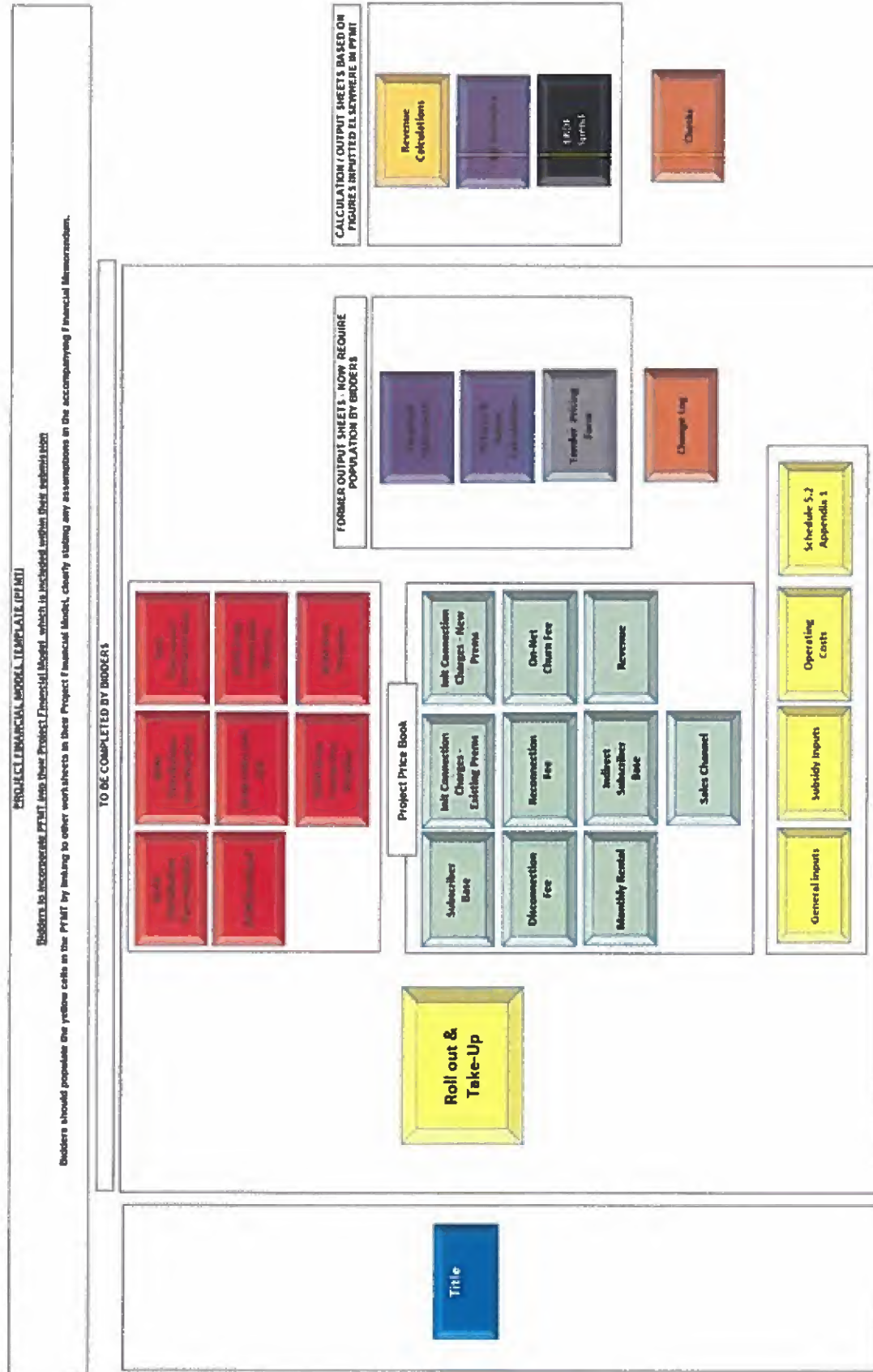
3.2 Project Financial Model Template Instructions

3.2.1 General structure and guidance

The worksheets contained within the PFMT are illustrated in Figure 3.1 below. The model template is provided as a soft copy MS Excel spreadsheet at Annex A. Each box in the map below includes a hyperlink to the relevant tab in the PFMT template. Each sheet also contains a box at the top of the page, which acts as a hyperlink back to the model map.



Figure 3.1 Structure of the PFMT



The PFMT is designed to set out each Bidder's proposed revenues (market based revenues as well as Subsidy Payments) and costs (ongoing and capital) for each Bidder's solution for delivering the Department's requirements.

Each Bidder must ensure that the PFMT directly reflects its complete solution. Without prejudice to the generality of the Important Notice, the Department and their advisors do not accept responsibility for any errors or omissions in the Bidder's Project Financial Model at any stage of the Procurement process.

3.2.2 PFMT instructions

This section explains the purpose and use of each worksheet within the PFMT.

The PFMT comprises a series of non-time and time based worksheets which are to be populated with the Bidder's input assumptions and outputs from its Project Financial Model.

Individual cells within the worksheets in the PFMT are colour-coded as follows:

Input cell for bidder	
Input cell fixed by authority	
Calculation cell	
Timing cell in input sheet	
Flag off cell	
Flag on cell	
List Permitted / Eligible	
List Not Permitted / Not Eligible	
Contains text instructions to bidders for inputting into cells	TEXT

Each Bidder is permitted to add further rows/columns to the PFMT or to amend worksheets as required to fit with its solution. Any such changes should be clearly detailed in the Change Log.

Light blue text boxes are included throughout the PFMT in order to provide specific guidance on the input into particular cells within the model.

The title of each worksheet within the PFMT and its purpose is briefly described in the following tables.

Table 3.1 – Worksheet overview and instructions

Worksheet	Commentary
Model Map	This worksheet ('model map') contains a map showing the worksheets contained within the PFMT. Each element of the map is hyperlinked to the relevant worksheet. There is a hyperlink at the top of each worksheet, which will allow the user to navigate back to this worksheet if required.
Roll out & Take-Up	<p>This worksheet contains yellow cells to be populated by the Bidder:</p> <ul style="list-style-type: none"> ■ Premise database – this table shows the various Premise categories that the Department has defined for the Intervention Area. Each Bidder should input its own assumptions for the number of each Premise type that exist in the Intervention Area. ■ New Premises and Dereliction – in this section a Bidder is required to input the number of New Premises forecast in the population of each Premise type within the Intervention Area per Quarter and the number of derelict/demolished Premises forecast in the population of each Premise type within the Intervention Area per Quarter. ■ Addressable Base – in this section a Bidder should input for each Premise type their assumptions for the percentage of Existing Premises in the Premise database (after adjustment for dereliction) that will make up the addressable base.



Worksheet	Commentary
	<p>Each Bidder should also input for each Premise type their assumptions for the percentage of New Premises on an updated Premise database that will make up the addressable base.</p> <ul style="list-style-type: none"> ■ Rollout to Existing Premises – in this section a Bidder must input the timing of its deployment solution in terms of the percentage of Existing Premises Passed per Quarter, up to the achievement of 100% in cell G158. ■ Take-Up Profiles for Existing Premises – Take-Up profiles exist for each category of customer in the Intervention Area. Each Bidder must input the expected Take-Up by Existing Premises by the end of each Quarter as a percentage of the cumulative Existing Premises Passed at the end of that Quarter. The calculations will interact with the deployment profile in order to give an output of the Cumulative Existing Premises Connected according to the combination of Take-Up profile and Deployment profile. ■ Off and On-net churn⁹ - in this section a Bidder must input its expected quarterly percentage Off and On-Net Churn per category of Premise in the Intervention Area. These assumptions will then flow into the Project Price Book. ■ Rollout to New Premises – in this section a Bidder must input the percentage of New Premises Passed per Quarter, up to the achievement of 100% in cell G418. ■ Take-Up Profiles for New Premises - Take-Up profiles exist for each category of customer in the Intervention Area. Each Bidder must input the expected Take-Up by New Premises by the end of each Quarter as a percentage of the cumulative New Premises Passed at the end of that Quarter. The calculations will interact with the deployment profile in order to give an output of the Cumulative New Premises Connected according to the combination of Take-Up profile and Deployment profile. ■ This worksheet also contains a calculation of the Annual Average Subscriber Base (in cell G609).
Sales Channel	<p>This worksheet contains yellow cells to be populated by the Bidder:</p> <ul style="list-style-type: none"> ■ Bidders must provide the expected breakdown of their forecast Subscriber Base by specific Wholesale Service Providers and Retail Service Providers. This worksheet presents the Subscriber Base per customer category from the 'Roll out and Take Up' worksheet. Bidders are required to enter, for each period, the proportion of the Subscriber Base for each customer category that is expected to be attributable to each Wholesale Service Provider and Retail Service Provider (which Bidders are to name in this worksheet). <p>The worksheet does not drive any other parts of the PFMT.</p>
Subscriber Base	<p>This worksheet contains yellow cells to be populated by the Bidder and forms part of the Project Price Book. The expected Take-Up of products by Quarter should be outlined; including any sub-product on the products offered. The products are split as follows:</p> <ul style="list-style-type: none"> ■ Direct subscriber based products⁹ made up of; <ul style="list-style-type: none"> – Minimum Required Wholesale Products; – Additional Required Wholesale Products; – Other Permitted Wholesale Products; and – Alternative Bitstream Wholesale Products <p>Only direct subscriber based products are driven by the Take-Up rates in the 'Roll out & Take-Up' sheet. Indirect subscriber based products¹⁰ must have their relevant</p>

⁹ Off-net churn is where a subscriber moves from the NBP network. On-net churn is where a subscriber moves from one Service Provider to another Service Provider, but remains on the NBP Network

¹⁰ Direct subscriber based products are products where take up is driven by a Connection directly attributable to a Premises, these products are driven by the Take Up rates in the rollout and Take Up sheet



Worksheet	Commentary
	<p>volume drivers input separately into the PFMT, these are entered in the 'Indirect Subscriber Base' worksheet.</p> <p>Each Premise category contains the Premises numbers resulting from the Bidder's assumptions input in the 'Roll Out & Take-Up' sheet. The Premises numbers for each Premise category are broken down into:</p> <ul style="list-style-type: none"> ■ Existing Premises initial connected; ■ New Premises initial connected; ■ Premises disconnected; ■ Premises reconnected; ■ Premises churning on net; and ■ Premises Connected - Cumulative.
Init Connect Charges Exist Prem (Initial Connection Charges - Existing Premises)¹¹	<p>This worksheet contains yellow cells to be populated by the Bidder and forms part of the Project Price Book. The Initial Connection Charge for existing Premises by Quarter should be outlined; including Initial Connection Charge for Existing Premises for any sub-product on the products offered. The products are split as follows:</p> <ul style="list-style-type: none"> ■ Minimum Required Wholesale Products; ■ Additional Required Wholesale Products ■ Other Permitted Wholesale Products; and ■ Alternative Bitstream Wholesale Products.
Init Connect Charges New Prem (Initial Connection Charges - New Premises)¹²	<p>This worksheet contains yellow cells to be populated by the Bidder and forms part of the Project Price Book. The Initial Connection Charge for New Premises by Quarter should be outlined; including Initial Connection Charge for New Premises for any sub-product on the products offered. The products are split as follows:</p> <ul style="list-style-type: none"> ■ Minimum Required Wholesale Products; ■ Additional Required Wholesale Products; ■ Other Permitted Wholesale Products; and ■ Alternative Bitstream Wholesale Products.
Disconnection Fees	<p>This worksheet contains yellow cells to be populated by the Bidder and forms part of the Project Price Book. The disconnection charges by Quarter should be outlined;</p>

¹⁰ Indirect subscriber based products are products where Take-Up is not driven by a Connection directly attributable to a premises, these products have their relevant volume drivers input separately into the model. Examples of Indirect subscriber based products include duct products, pole products, dark fibre, radio tower and mast products, building and cabin co-location products, leased lines products, voice products, multicast products, interconnect products, transmission products and mobile backhaul products.

¹¹ Bidders should note that the number of Premises Connected and the revenue from Initial Connection Charges shall be consistent with their obligation to Connect all Premises within the service fulfilment times set out in the Paragraph 2.1 of Schedule 2.4 of the Contract. For example, Bidders are not permitted to adjust the number of Connected Premises downwards to take account of private property issues etc.

¹² Bidders should note that the number of Premises Connected and the revenue from Initial Connection Charges shall be consistent with their obligation to Connect all Premises within the service fulfilment times set out in the Paragraph 2.1 of Schedule 2.4 of the Contract. For example, Bidders are not permitted to adjust the number of Connected Premises downwards to take account of private property issues etc.



Worksheet	Commentary
	<p>including disconnection charges for any sub-product on the products offered. The products are split as follows:</p> <ul style="list-style-type: none"> ■ Minimum Required Wholesale Products; ■ Additional Required Wholesale Products; ■ Other Permitted Wholesale Products; and ■ Alternative Bitstream Wholesale Products.
Reconnection Fees	<p>This worksheet contains yellow cells to be populated by the Bidder and forms part of the Project Price Book. The reconnection charges by Quarter should be outlined; including reconnection charges for any sub-product on the products offered. The products are split as follows:</p> <ul style="list-style-type: none"> ■ Minimum Required Wholesale Products; ■ Additional Required Wholesale Products; ■ Other Permitted Wholesale Products; and ■ Alternative Bitstream Wholesale Products.
On-Net Churn Fees	<p>This worksheet contains yellow cells to be populated by the Bidder and forms part of the Project Price Book. The on-net churn charges by Quarter should be outlined; including on-net churn charges for any sub-product on the products offered. The products are split as follows:</p> <ul style="list-style-type: none"> ■ Minimum Required Wholesale Products; ■ Additional Required Wholesale Products; ■ Other Permitted Wholesale Products; and ■ Alternative Bitstream Wholesale Products.
Monthly Rental	<p>This worksheet contains yellow cells to be populated by the Bidder and forms part of the Project Price Book. The product price by Quarter should be outlined; including any sub-product on the products offered. The products are split as follows:</p> <ul style="list-style-type: none"> ■ Minimum Required Wholesale Products; ■ Additional Required Wholesale Products; ■ Other Permitted Wholesale Products; and ■ Alternative Bitstream Wholesale Products.
Indirect Subscriber Base	<p>This worksheet contains yellow cells to be populated by the Bidder with:</p> <ul style="list-style-type: none"> ■ revenue drivers and prices for indirect subscriber based products; and ■ calculations showing how the revenue is calculated from these revenue driver and price inputs. <p>Examples of indirect subscriber based products include duct products, pole products, dark fibre, radio tower and mast products, building and cabin co-location products, leased lines products, voice products, multicast products, interconnect products, transmission products and mobile backhaul products.</p> <p>There are separate sections for:</p> <ul style="list-style-type: none"> ■ Connection revenue from indirect subscriber based products; and ■ Non-connection revenue from indirect subscriber based products.
Revenues	<p>This worksheet forms part of the Project Price Book and contains yellow cells to be populated by the Bidder with:</p> <ul style="list-style-type: none"> ■ Revenue generated each Quarter, split by Premises type (as entered in 'Roll out & Take-Up'), product (as entered in 'Subscriber Base') and revenue type: <ul style="list-style-type: none"> – Monthly rental revenue; – Existing Premises initial Connection revenue; – New Premises initial Connection revenue; – Disconnection revenue; – Reconnection revenue; – On-net churn revenue; and



Worksheet	Commentary
	<p>■ VAT rates applicable to each revenue component.</p> <p>The revenue generated each Quarter from indirect subscriber based products is linked to the yellow cells to be populated by Bidders in the 'Indirect Subscriber Base' worksheet.</p>
Sch 5.2 App 1 (Schedule 5.2 Appendix 1)	<p>Bidders must complete this worksheet with reference to Schedule 5.2 of the Contract. The Wholesale Prices set out in this worksheet must be consistent with the assumptions contained within the Project Price Book. This worksheet is an output sheet and, for the successful Bidder, will form part of the Contract as Appendix 1 to Schedule 5.2.</p>
Categories 1-5	<p>This worksheet provides a brief overview of the categories of Capital Expenditure within the PFMT arising from the Project Cost Model and the part of the Network design to which they relate. The ensuing sheets each contain a number in brackets to signify the part of the Network to which the inputs contained within the sheet related.</p>
BOM Distribution Part Wireline (2)	<p>This worksheet contains yellow cells to be populated by the Bidder with the outputs of the Project Cost Model in relation to the distribution part wireline of the Network.</p> <ul style="list-style-type: none"> ■ 'Capex - Total Rollout - Pre Grants' – this section should be populated by the Bidder with the relevant actual costs of component parts of this part of the Network and NBPco's applicable margin under four sub headings. A number of sample component parts have been included in the template, as well as a number of cells marked as "[spare]". Each Bidder may amend these component labels to suit its own solution and replace spare cells as required. Each Bidder should input the total capital cost incurred for each of the component parts over the term of the Contract, inclusive of any replacement Capital Expenditure that is required. Each Bidder is required to separately advise the euro level of contingency being assumed for the category of assets in this sheet. A separate row in the other Capital Expenditure element of the sheet is maintained for this purpose. ■ 'Capex - Initial Rollout - Pre Grants' – this section should be treated the same as the 'Capex - Total Rollout - Pre Grants' section, with the only change being that replacement Capital Expenditure over the term of the Contract should be ignored. There are drop down lists adjacent to input cells in this section, where each Bidder will select if an inputted capex line is Permitted Expenditure Passed or not, and if an inputted capex line is Eligible ERDF Expenditure or not. There is also an automatic flag, which will switch off Permitted Expenditure Passed once deployment has been completed. ■ 'Permitted Expenditure Passed by Deployment Area' – this section should be populated by the Bidder with the Permitted Expenditure Passed related to design of the network for each Deployment Area, and the other Permitted Expenditure Passed (excluding design of the network) for each Deployment Area. There is a check to ensure that the total Permitted Expenditure Passed entered by Deployment Area equals the total Permitted Expenditure Passed identified in the 'Capex - Initial Rollout - Pre Grants' section. ■ 'Capex Applicable VAT rates' – this section should be populated by the Bidder with the VAT rates applicable to each cost component. ■ 'Useful Lives' – Each Bidder is required to input its useful life (in years) assumption for each component part identified in the section. <p>The 'Capex - Replacement Only - Pre Grants' section calculates the replacement Capital Expenditure, based on the figures entered by the Bidder for total Capital Expenditure and initial Capital Expenditure.</p>
BOM Distribution Part Wireless (2)	<p>This worksheet contains yellow cells to be populated by the Bidder with the outputs of the Project Cost Model in relation to the distribution part wireless of the Network.</p> <ul style="list-style-type: none"> ■ 'Capex - Total Rollout - Pre Grants' – this section should be populated by the Bidder with the relevant actual costs of component parts of this part of the Network and NBPco's applicable margin under four sub headings. A number of sample component parts have been included in the template, as well as a number of cells marked as "[spare]". Each Bidder may amend these component labels to suit its own solution and replace spare cells as required. Each Bidder should input the total capital cost incurred for each of the component parts over the term of



Worksheet	Commentary
	<p>the Contract, inclusive of any replacement Capital Expenditure that is required. Each Bidder is required to separately advise the euro level of contingency being assumed for the category of assets in this sheet. A separate row in the other Capital Expenditure element of the sheet is maintained for this purpose.</p> <ul style="list-style-type: none"> ■ 'Capex - Initial Rollout - Pre Grants' – this section should be treated the same as the 'Capex - Total Rollout - Pre Grants' section, with the only change being that replacement Capital Expenditure over the term of the Contract should be ignored. There are drop down lists adjacent to input cells in this section, where each Bidder will select if an inputted capex line is Permitted Expenditure Passed or not and if an inputted capex line is Eligible ERDF Expenditure or not. There is also an automatic flag, which will switch off Permitted Expenditure Passed once deployment has been complete. ■ 'Permitted Expenditure Passed by Deployment Area' – this section should be populated by each Bidder with the Permitted Expenditure Passed related to design of the network for each Deployment Area, and the other Permitted Expenditure Passed (excluding design of the network) for each Deployment Area. There is a check to ensure that the total Permitted Expenditure Passed entered by Deployment Area equals the total Permitted Expenditure Passed identified in the 'Capex - Initial Rollout - Pre Grants' section. ■ 'Capex Applicable VAT rates' – this section should be populated by the Bidder with the VAT rates applicable to each cost component. ■ 'Useful Lives' – Each Bidder is required to input its useful life (in years) assumption for each component part identified in the section. <p>The 'Capex - Replacement Only - Pre Grants' section calculates the replacement Capital Expenditure, based on the figures entered by the Bidder for total Capital Expenditure and initial Capital Expenditure.</p>
BOM Backhaul (3)	<p>This worksheet contains yellow cells to be populated by the Bidder with the outputs of the Project Cost Model in relation to the backhaul element of the Network.</p> <ul style="list-style-type: none"> ■ 'Capex - Total Rollout - Pre Grants' – this section should be populated by the Bidder with the relevant actual costs of component parts of this part of the Network and NBPco's applicable margin under three sub headings. A number of sample component parts have been included in the template, as well as a number of cells marked as "[spare]". Each Bidder may amend these component labels to suit its own solution and replace spare cells as required. Each Bidder should input the total capital cost incurred for each of the component parts over the term of the Contract, inclusive of any replacement Capital Expenditure that is required. Each Bidder is required to separately advise the euro level of contingency being assumed for the category of assets in this sheet. A separate row in the other Capital Expenditure element of the sheet is maintained for this purpose. ■ 'Capex - Initial Rollout - Pre Grants' – this section should be treated the same as the 'Capex - Total Rollout - Pre Grants' section, with the only change being that replacement Capital Expenditure over the term of the Contract should be ignored. There are drop down lists adjacent to input cells in this section, where each Bidder will select if an inputted capex line is Permitted Expenditure Passed or not and if an inputted capex line is Eligible ERDF Expenditure or not. There is also an automatic flag which will switch off Permitted Expenditure Passed once deployment has been complete. ■ 'Permitted Expenditure Passed by Deployment Area' – this section should be populated by the Bidder with the Permitted Expenditure Passed related to design of the network for each Deployment Area, and the other Permitted Expenditure Passed (excluding design of the network) for each Deployment Area. There is a check to ensure that the total Permitted Expenditure Passed entered by Deployment Area equals the total Permitted Expenditure Passed identified in the 'Capex - Initial Rollout - Pre Grants' section. ■ 'Capex Applicable VAT rates' – this section should be populated by the Bidder with the VAT rates applicable to each cost component. ■ 'Useful Lives' – Each Bidder is required to input its useful life (in years) assumption for each component part identified in the section.



Worksheet	Commentary
	<p>The 'Capex – Replacement Only – Pre Grants' section calculates the replacement Capital Expenditure, based on the figures entered by the Bidder for total Capital Expenditure and initial Capital Expenditure.</p>
<p>BOM Interconnect/National Backhaul (4)</p>	<p>This worksheet contains yellow cells to be populated by the Bidder with the outputs of the Project Cost Model in relation to the Interconnect/National backhaul part of the Network.</p> <ul style="list-style-type: none"> ■ 'Capex - Total Rollout - Pre Grants' – this section should be populated by the Bidder with the relevant actual costs of component parts of this part of the Network and NBPco's applicable margin under three sub headings. A number of sample component parts have been included in the template, as well as a number of cells marked as "[spare]". Each Bidder may amend these component labels to suit its own solution and replace spare cells as required. Each Bidder should input the total capital cost incurred for each of the component parts over the term of the Contract, inclusive of any replacement Capital Expenditure that is required. Each Bidder is required to separately advise the euro level of contingency being assumed for the category of assets in this sheet. A separate row in the other Capital Expenditure element of the sheet is maintained for this purpose. ■ 'Capex - Initial Rollout - Pre Grants' – this section should be treated the same as the 'Capex - Total Rollout - Pre Grants' section, with the only change being that replacement Capital Expenditure over the term of the Contract should be ignored. There are drop down lists adjacent to input cells in this section, where each Bidder will select if an inputted capex line is Permitted Expenditure Passed or not and if an inputted capex line is Eligible ERDF Expenditure or not. There is also an automatic flag, which will switch off Permitted Expenditure Passed once deployment has been complete. ■ 'Permitted Expenditure Passed by Deployment Area' – this section should be populated by the Bidder with the Permitted Expenditure Passed related to design of the network for each Deployment Area, and the other Permitted Expenditure Passed (excluding design of the network) for each Deployment Area. There is a check to ensure that the total Permitted Expenditure Passed entered by Deployment Area equals the total Permitted Expenditure Passed identified in the 'Capex – Initial Rollout – Pre Grants' section. ■ 'Capex Applicable VAT rates' – this section should be populated by the Bidder with the VAT rates applicable to each cost component. ■ 'Useful Lives'– Each Bidder is required to input its useful life (in years) assumption for each component part identified in the section. <p>The 'Capex – Replacement Only – Pre Grants' section calculates the replacement Capital Expenditure, based on the figures entered by the Bidder for total Capital Expenditure and initial Capital Expenditure.</p>
<p>BOM UWG OSS BSS (5)</p>	<p>This worksheet contains yellow cells to be populated by the Bidder with the outputs of the Project Cost Model in relation to the UWG and OSS/BSS part of the Network.</p> <ul style="list-style-type: none"> ■ 'Capex - Total Rollout - Pre Grants' – this section should be populated by the Bidder with the relevant actual costs of component parts of this part of the Network and NBPco's applicable margin under two sub headings. A number of sample component parts have been included in the template, as well as a number of cells marked as "[spare]". Each Bidder may amend these component labels to suit its own solution and replace spare cells as required. Each Bidder should input the total capital cost incurred for each of the component parts over the term of the Contract, inclusive of any replacement Capital Expenditure that is required. Each Bidder is required to separately advise the euro level of contingency being assumed for the category of assets in this sheet. A separate row in the other Capital Expenditure element of the sheet is maintained for this purpose. ■ 'Capex - Initial Rollout - Pre Grants' – this section should be treated the same as the 'Capex - Total Rollout - Pre Grants' section, with the only change being that replacement Capital Expenditure over the term of the Contract should be ignored. There are drop down lists adjacent to input cells in this section, where each Bidder will select if an inputted capex line is Permitted Expenditure Passed or not and if an inputted capex line is Eligible ERDF Expenditure or not. There is also an



Worksheet	Commentary
	<p>automatic flag, which will switch off Permitted Expenditure Passed once deployment has been complete.</p> <ul style="list-style-type: none"> ■ 'Permitted Expenditure Passed by Deployment Area' – this section should be populated by the Bidder with the Permitted Expenditure Passed related to design of the network for each Deployment Area, and the other Permitted Expenditure Passed (excluding design of the network) for each Deployment Area. There is a check to ensure that the total Permitted Expenditure Passed entered by Deployment Area equals the total Permitted Expenditure Passed identified in the 'Capex – Initial Rollout – Pre Grants' section. ■ 'Capex Applicable VAT rates' – this section should be populated by the Bidder with the VAT rates applicable to each cost component. ■ 'Useful Lives' – Each Bidder is required to input its useful life (in years) assumption for each component part identified in the section. <p>The 'Capex – Replacement Only – Pre Grants' section calculates the replacement Capital Expenditure, based on the figures entered by the Bidder for total Capital Expenditure and initial Capital Expenditure.</p>
BOM Drop Connection Wireless (1)	<p>This worksheet contains yellow cells to be populated by the Bidder with the outputs of the Project Cost Model in relation to the Drop Connection Wireless part of the Network for all Premises Passed during the initial deployment to a Deployment Area.</p> <ul style="list-style-type: none"> ■ 'Capex - Total Rollout - Pre Grants' – this section should be populated by the Bidder with the relevant actual costs of component parts of this part of the Network and NBPco's applicable margin under two sub headings. A number of sample component parts have been included in the template, as well as a number of cells marked as "[spare]". Each Bidder may amend these component labels to suit its own solution and replace spare cells as required. Each Bidder should input the total capital cost incurred for each of the component parts over the term of the Contract, inclusive of any replacement Capital Expenditure that is required. Each Bidder is required to separately advise the euro level of contingency being assumed for the category of assets in this sheet. A separate row in the other Capital Expenditure element of the sheet is maintained for this purpose. ■ 'Capex - Initial Rollout - Pre Grants' – this section should be treated the same as the 'Capex - Total Rollout - Pre Grants' section, with the only change being that replacement Capital Expenditure over the term of the Contract should be ignored. There are drop down lists adjacent to input cells in this section, where each Bidder will select if an inputted capex line is Permitted Expenditure Connect or not, and if an inputted capex line is Eligible ERDF Expenditure or not. ■ 'Capex Applicable VAT rates' – this section should be populated by the Bidder with the VAT rates applicable to each cost component. ■ 'Useful Lives' - Each Bidder is required to input its useful life (in years) assumption for each component part identified in the section. <p>The 'Capex – Replacement Only – Pre Grants' section calculates the replacement Capital Expenditure, based on the figures entered by the Bidder for total Capital Expenditure and initial Capital Expenditure.</p>
BOM Drop Connection Wireline (1)	<p>This worksheet contains yellow cells to be populated by the Bidder with the outputs of the Project Cost Model in relation to the Drop Connection Wireline of the Network for all Premises Passed during the initial deployment to a Deployment Area.</p> <ul style="list-style-type: none"> ■ 'Capex - Total Rollout - Pre Grants' – this section should be populated by the Bidder with the relevant actual costs of component parts of this part of the Network and NBPco's applicable margin under four sub headings. A number of sample component parts have been included in the template, as well as a number of cells marked as "[spare]". Each Bidder may amend these component labels to suit its own solution and replace spare cells as required. Each Bidder should input the total capital cost incurred for each of the component parts over the term of the Contract, inclusive of any replacement Capital Expenditure that is required. Each Bidder is required to separately advise the euro level of contingency being assumed for the category of assets in this sheet. A separate row in the other Capital Expenditure element of the sheet is maintained for this purpose.



Worksheet	Commentary
	<ul style="list-style-type: none"> ■ 'Capex - Initial Rollout - Pre Grants' – this section should be treated the same as the 'Capex - Total Rollout - Pre Grants' section, with the only change being that replacement Capital Expenditure over the term of the Contract should be ignored. There are drop down lists adjacent to input cells in the sheet, where each Bidder will select if an inputted capex line is Permitted Expenditure Connect or not, and if an inputted capex line is Eligible ERDF Expenditure or not. ■ 'Capex Applicable VAT rates' – this section should be populated by the Bidder with the VAT rates applicable to each cost component. ■ 'Useful Lives' – Each Bidder is required to input its useful life (in years) assumption for each component part identified in the section. <p>The 'Capex – Replacement Only – Pre Grants' section calculates the replacement Capital Expenditure, based on the figures entered by the Bidder for total Capital Expenditure and initial Capital Expenditure.</p>
BOM – New Premises (BOM – New Premises)	<p>This worksheet contains yellow cells to be populated by the Bidder with the outputs of the Project Cost Model in relation to the capex required to Pass and Connect New Premises which were not Passed during the initial deployment to a Deployment Area. There are separate sections for:</p> <ul style="list-style-type: none"> ■ Capex to Pass New Premises; and ■ Capex to Connect New Premises. <p>For each of the two categories above, there are the following subsections:</p> <ul style="list-style-type: none"> ■ 'Capex - Total Rollout - Pre Grants' – this section should be populated by the Bidder with the relevant actual costs of component parts of this part of the Network and its applicable margin under two sub headings. Each Bidder should input the total capital cost incurred for each of the component parts over the term of the Contract, inclusive of any replacement Capital Expenditure that is required. Each Bidder is required to separately advise the euro level of contingency being assumed for the category of assets in this sheet. ■ 'Capex - Initial Rollout - Pre Grants' – this section should be treated the same as the 'Capex - Total Rollout - Pre Grants' section, with the only change being that replacement Capital Expenditure over the term of the Contract should be ignored. For Capex to Connect New Premises, there are drop down lists adjacent to input cells in this section, where each Bidder will select if an inputted capex line is Permitted Expenditure Connect or not, and if an inputted capex line is Eligible ERDF Expenditure or not. ■ 'Capex Applicable VAT rates' – this section should be populated by the Bidder with the VAT rates applicable to each cost component. ■ 'Useful Lives' - Each Bidder is required to input its useful life (in years) assumption for each component part identified in the section. <p>The 'Capex – Replacement Only – Pre Grants' section calculates the replacement Capital Expenditure, based on the figures entered by the Bidder for total Capital Expenditure and initial Capital Expenditure.</p>
General inputs	<p>This worksheet contains yellow cells to be populated by the Bidder:</p> <ul style="list-style-type: none"> ■ 'Model Information' – the Bidder should enter the model name. ■ 'Timings' – this section contains the dates for commencement of the different phases of the Contract. Each Bidder should enter the starting date of the model and the Deployment Completion Date. ■ ■ 'Revenue indexation assumptions' – the Bidder should enter the percentage of Benchmark Reference Prices and Initial Connection Charges subject to indexation (PSI_{GRP}). <p>This worksheet also sets out various parameters and values used by the Department.</p> <ul style="list-style-type: none"> ■ 'Nominal Discount Rate' – this section sets out: <ul style="list-style-type: none"> – the nominal discount rate and base date to be used for evaluation purposes. – The nominal discount rate and base date to be used for checks performed in



Worksheet	Commentary
	<p>Net Present Value terms.</p> <p>The Department will provide updated nominal discount rates to Bidders approximately 5 business days in advance of the ISFT submission date.</p> <ul style="list-style-type: none"> ■ 'Assumed Annual Movement in HICP for the purposes of ISFT evaluation' – this section sets out the annual rate of movement of the European Union Harmonised Index of Consumer Prices (HICP) to be assumed for the purposes of ISFT evaluation.
Subsidy Inputs	<p>This worksheet contains yellow cells to be populated by the Bidder:</p> <ul style="list-style-type: none"> ■ 'Split of subsidy' – this section is where each Bidder inputs: <ul style="list-style-type: none"> – The total Subsidy Payments required to deliver its commercial solution across; Deployment Milestone Payments (includes milestones for design and for Premises Passed), Connection Milestone Payments and Ongoing Capital Payments – How each of the Subsidy Payments are accounted for in the Project Financial Model, i.e. either as a capital grant or as a revenue grant. This decision should be based on the Bidder's own accounting advice. – In relation to the Connection Milestone Payments and Ongoing Capital Payments, what percentage of the subsidy is subject to indexation.
Op Costs Inputs	<p>This sheet contains yellow cells to be populated by the Bidder with a combination of operating costs generated in the Project Cost Model (Network related operating costs) and operating costs that are non-related to the Network that must also be included in the Project Financial Model.</p> <ul style="list-style-type: none"> ■ 'Maintenance' – this section should be populated by the Bidder with its maintenance cost assumptions for the solution that is put forward. The underlying assumptions for this section must be illustrated in the Project Cost Model. ■ 'Network operations' – this section should be populated by the Bidder with its Network operation costs. The underlying assumptions for this section must be detailed in the Project Cost Model. ■ 'Rental costs' – this section should be populated by the Bidder with its rental operating costs. The underlying assumptions for this section must be illustrated in the Project Cost Model. Drop down lists for the apportionment of Permitted Expenditure Passed, Permitted Expenditure Connect and Eligible ERDF Expenditure operating costs are included in this section. ■ 'Other Network related costs' – this section should be populated by the Bidder with its other Network related costs within operating costs. The underlying assumptions for this section must be illustrated in the Project Cost Model. ■ 'Non-Network related operating costs' – this section should be populated by the Bidder with all non-Network costs including those that NBPco will have as a separate company within its parent's group structure. ■ 'Permitted Expenditure Passed by Deployment Area' – this section should be populated by the Bidder with the forecast operating costs which are categorised as Permitted Expenditure Passed for each Deployment Area. There is a check to ensure that the total Permitted Expenditure Passed entered by Deployment Area equals the total Permitted Expenditure Passed identified in the 'Rental Costs' section. ■ VAT rates should also be populated in this sheet where appropriate. FTE equivalent salary costs should be inclusive of employer PRSI, bonuses and any other relevant employee costs.
Rev Calc	<p>There are no yellow cells to be populated by the Bidder on this sheet.</p> <p>This sheet contains calculations of the checks comparing the NPV of Subsidy Payments to date to the NPV of Permitted Expenditure to date.</p>
Financial Stmt's	<p>This sheet contains yellow cells to be populated by the Bidder with the cash flow waterfall, income statement and balance sheet for NBPco. Additional rows for Bidder inputs have been included in certain cases where a Bidder may need to include</p>



Worksheet	Commentary
	additional line items.
Returns & Ratios Calc	<p>This sheet contains yellow cells to be populated by the Bidder with:</p> <ul style="list-style-type: none"> ■ Base Subsidy Payments (Passed); and ■ Adjustments to the calculation of the Project Claw-Back IRR, if required in order to reflect Schedule 5.1 Clause 16.3. <p>This sheet calculates the equity and project returns for the project as well as a number of ratios relevant to the overall evaluation, based on figures populated by the Bidder in other sheets in the PFMT.</p>
TPF (Tender Pricing Form)	<p>This sheet contains yellow cells to be populated by the Bidder:</p> <ul style="list-style-type: none"> ■ 'Deployment Milestone Payments' - this section should be populated by the Bidder with the details of each Deployment Milestone Payment (with the time based profile populated based on the timing of DMPs before adjustment for working capital assumptions). ■ 'Ongoing Capital Payments' - this section should be populated by the Bidder with the details of each element of the Ongoing Capital Payments (with the time based profile populated based on the timing of the OCPs before adjustment for working capital assumptions). ■ 'Connection Milestone Payments' - this section should be populated by the Bidder with the details of each Connection Milestone Payment (with the time based profile populated based on the timing of the CMPs before adjustment for working capital assumptions). The Bidder should also populate this section with: <ul style="list-style-type: none"> – The number of Band 1 Connection Milestones achieved in each Quarter; and – The number of Band 2 Connection Milestones achieved in each Quarter. ■ 'NPV for Evaluation Purposes' - the yellow cells in this section should be populated by the Bidder with the cash received each Quarter by NBPco in relation to Subsidy Payments (including cash received after the end of the Contract Period), for use in the calculation of the NPV for evaluation purposes. <p>The outputs of this sheet will be inserted into Schedule 5.1 of the Contract, and includes the schedule of Subsidy Payments to the Bidder as well as the NPV for evaluation purposes.</p>
Cost Summary	<p>There are no yellow cells to be populated by the Bidder on this sheet.</p> <p>This sheet summarises total capex and total opex, providing a summary breakdown between key cost components.</p>
ERDF Spend	<p>There are no yellow cells to be populated by the Bidder on this sheet.</p> <p>The sheet is where the sum and timing of Eligible ERDF Expenditure spend is accumulated based on the use of dropdown menus for inputting capital and operating costs.</p>
Checks	<p>There are no yellow cells to be populated by the Bidder on this sheet.</p> <p>This sheet contains the results of checks performed within the PFMT. Bidder checks relate to Bidders populating sheets correctly and the Bidder's assumptions being within required parameters. The overall result of the Bidder checks is shown at the top of each worksheet.</p>
Change Log	<p>This sheet contains an overview of changes made in the PFMT since the last version issued.</p> <p>The Bidder should populate this sheet with:</p> <ul style="list-style-type: none"> ■ Details of any changes that are made by the Bidder to the PFMT issued by the Department; and ■ If the Bidder is using calculation sheets from previous versions of the PFMT, details of any amendments to the calculations in these sheets.



4 Project Cost Model

4.1 Requirements

The purpose of the Project Cost Model is to present, in a robust and transparent manner, the Bidder's Network related capital and operating cost drivers, input assumptions, calculations and outputs for its proposed technical and deployment solution. The Project Cost Model should identify all output costs (capital and operating) over the term of the Contract and form the input (and be reconciled) to the Project Financial Model.

The Project Cost Model is to be developed by each Bidder to demonstrate in detail the requirements set out in this section.

Bidders are required to include the following in the Project Cost Model:

- a forecast of costs for the Network, at the Project level;
- full details of the forecast Capital Expenditure, including Connection costs, at the Project level, and also provide the breakdown of these costs at a granular level, consistent with the guidance outlined in Section 4.2 and 4.3 below;
- full details of the forecast operating costs at the Project level, and also provides the breakdown of these costs at a granular level, consistent with the guidance outlined in Section 4.2 and 4.3 below;
- details of the forecast costs down to a Bill of Materials (BOM) level as outlined in Section 4.2 and 4.3 below;
- allows the Department to review if the technical design is reflected in the PCM during Final Tender;
- allows the Department to reconcile actual deployment costs with the planned Network costs and look for an appropriate claw back where savings have been made during deployment;
- demonstrates each Bidder's reinvestment programme to meet the future proof requirements set out in Clause 26, Schedule 2.1, Schedule 6.4 and Schedule 5.2;
- allows for all output costs (capital and operating) over the term of the Contract to form an input and be reconciled to the Project Financial Model; and
- shows clearly the different infrastructure access prices, which are involved in getting to the Intervention Area and within the Intervention Area.
- Include sufficient details to allow the calculation of Clawback for the Passed Network

A separate Cost Memorandum (set out in Section 7) should be submitted with the Project Cost Model outlining any narrative relevant for the Project Cost Model.

The Bidder is also required to comply with the Contract Assumptions detailed in Annex 5 and Annex 6 of Schedule 6.2 (Change Control).

4.2 Guidance on the Project Cost Model structure

The Department is not prescribing a pro-forma template for the Project Cost Model, but the Project Cost Model should follow the structure set out in Figure 4.1.

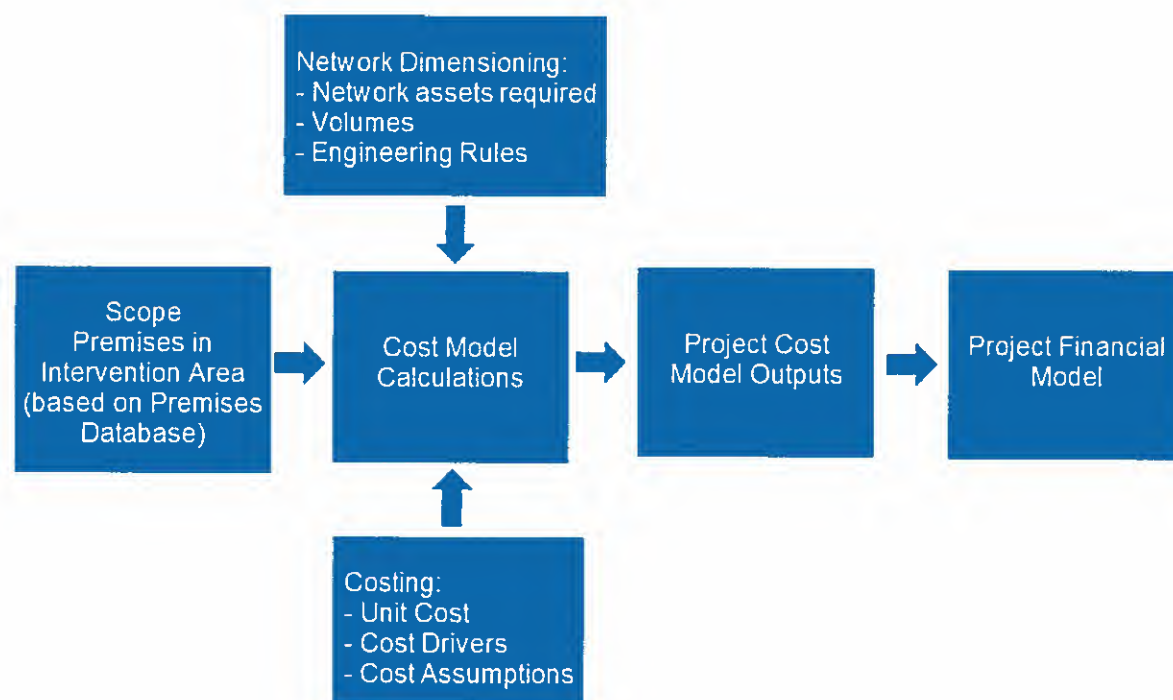
The below outlines guidance on the structure of the Project Cost Model which Bidders are requested to follow:

- That Bidder's use Microsoft Excel 2013 or fully compatible versions for its Project Cost Model;



- Where a Bidder needs to provide information in another format, it must clearly identify that application (and version) and seek approval from the Department (this may include required geo-spatial applications, etc.);
- No formulas/macros that link to external files are allowed;
- No hidden rows, columns, cells or worksheets are allowed;
- That all formulae are visible within the worksheets; and
- a "change log" worksheet is maintained with details of any changes that are made to the Project Cost Model subsequent to ISRDS submission.

Figure 4.1 Flow of Analysis from Premises, through to the Project Cost Model



The Project Cost Model should be developed in a similar way to other telecommunications projects of this nature. Examples of cost models developed by ComReg as an illustration of best practice can be found at the following links:

- Copper access model – See Section 5 of <http://www.comreg.ie/publication/consultation-on-current-generation-wholesale-access-services/>
- Mobile termination rates Model- <http://www.comreg.ie/publication/mobile-termination-rates-deloitte-mtr-model-specification-for-ireland-public-final-report/>

The design will drive the Project Cost Model.

For the purposes of developing a consistent Project Cost Model across various Network topologies, architectures and technologies the Bidder should break the modelled network into functional blocks (Categories) as shown below in Table 4.1 and as delineated in the Network diagram in Appendix 1. Each of these categories is described in Section 4.4.2. Bidders should fill in the capital and operating costs in the associated Project Cost Model for each of the categories. The sum of the costs for each category should equal the total for the bid.

Table 4.1 – Capital and operating cost categories



Wireline/Wireless Category	Category name	From (interface point)	To (interface point)
1	Drop Connection part	User Network Interface (UNI) on the WCPE in the customer's Premises	Distribution Point (DP)
2	Distribution part	Distribution Point (DP)	First point of active aggregation (POA)
3	Backhaul part	First point of active aggregation (POA)	Point of Handover interface point (NNI)
4	Interconnect/ National Backhaul part ¹³	Point of Handover interface point (NNI)	Retail Service Provider (RSP) Network interface point or another Point of Handover interface point (NNI) as per Network Design requirements
5	UWG and OSS/BSS systems	N/A	N/A

4.3 Guidance on the General Requirements

The Premises Database as described in Appendix 1 of Schedule 2.3 of the Contract should be linked with the Project Cost Model in the development of the Final Tender.

The Bidder should:

- Outline its methodology and proprietary tools used with the Premises Database to develop Network design.
- Provide details of all engineering rules applied;
- Fill in the detailed BOM sheets down to component level for each of the categories in the appropriate tabs in the Project Cost Model in line with Section 4.4.2;
- Show the cost associated with each Deployment Area for the following category (as a minimum)
 - Permitted Expenditure Passed by Deployment Area related to design of network
 - Permitted Expenditure Passed by Deployment Area excluding design of network;
 - Permitted Expenditure Passed by Deployment Area associated with rental cost (opex);
- Fill out the unit costs for each component in each category in line with Section 4.4.2;
- Ensure that cost assumptions within the Project Cost Model are consistent with the definitions of expenditure outlined in Appendix 4 (Permitted Expenditure Categories) of Schedule 5.1 (Subsidy Payments), including Permitted Expenditure, Project Costs, Avoidable and Un-Avoidable Costs;
- Detail the Bidder's reinvestment programme to meet the future proof requirements set out in Clause 26, Schedule 6.4 and Schedule 2.1 and benchmarking requirements in Schedule 5.2;
- Ensure the Project Cost Model is capable of the following outputs:
 - provide the breakdown of capital costs into labour and material;
 - provide the breakdown of operational costs into labour and material (where appropriate); and
- Incorporate the Project Cost Model tabs (BOM tabs) utilised within the Project Financial Model within the Project Cost Model developed by the Bidder;

¹³ Note that this category may be used to cover either Interconnect or National Backhaul, depending on the network configuration and the network design requirements



- Fill out the costs for each category at an aggregated level in the associated spreadsheet;
- Not deviate from the reference model described in the categories above and as shown in the Network diagram in Appendix A;
- In the case where a deviation is unavoidable a clear description (including a diagram) shall be provided;
- In terms of infrastructure requirements that form part of the technical solution, the Bidder should clearly identify:
 - what infrastructure (both passive and active) the Bidder plans to rent or lease;
 - who owns the infrastructure (both passive and active) required by the Bidder;
 - where not covered by a Contract Assumption, what the upfront/recurring costs of the infrastructure (both passive and active) are and, in the case of infrastructure that is owned by an entity in the same economic group, details of how prices were arrived at; and
 - what rental agreements they have in place; and
- Each Bidder should include within the operating cost input sheet of the Project Cost Model each of the following categories of operating costs, at a minimum:
 - Operating cost category description;
 - Basis for unit measurement of the operating cost (per Full Time Equivalent (FTE), per metre, per cabinet etc.);
 - Operating cost per unit;
 - Eligibility for Subsidy Payments (based on the definition of Permitted Expenditure);
 - Description of circumstances where the stated operating cost for the operating cost category would be expected to vary from values presented. i.e. an explanation of the cost drivers for the operating cost category;
 - Operating cost category inflation assumption; and
 - Name of Key Subcontractor responsible for the operating cost category (or if not identified at the time of submission, labelled as such).

4.4 Guidance on Specific Requirements

A Bidder is should outline the engineering rules used within the Project Cost Model, providing supporting documentation within the Cost Memorandum. Any assumptions involving these engineering rules should be clearly outlined as these assumptions and rules will be key drivers in the BOM.

Each Bidder must use the Build Related Contract Assumptions (set out in Annex 6 of Schedule 6.2) and the Post Build Contract Assumptions (set out in Annex 5 of Schedule 6.2) when determining the costs included in the Project Cost Model.

The following steps should be set out in the development of Project Cost Model in line with the diagram set out Figure 4.1.

Step 1 - Network Dimensioning.

Network dimensioning means computing the number of assets required to meet the requirements of Schedule 2.1 (Technical Solution), with consideration of:

- Premises within the Intervention Area, incorporating forecast Take-Up and New Premises assumptions;
- The Network volumes (lengths of Network, number of base stations, etc.) required to Pass and Connect those Premises;
- The Network equipment required (to include all passive and active);



- The engineering rules applied, including types of cable required, number of users per base station, etc.;
- Required re-use of infrastructure; and
- An explanation of the algorithm used to dimension the Network.

The main output of this step is the BOM (i.e. assets required) and the Network volume drivers of costs.

Step 2 - Costing

- Identification of unit costs for all assets required clearly separating material and labour when appropriate;
- Identification of all inflation assumptions for assets over the Contract duration;
- Identification of all operating costs applicable and the drivers of operating costs; and
- Identification of all contingency assumptions.

Step 3 – Cost Model Calculations

The Cost Model should then calculate the outputs of Step 1 and Step 2 to determine the Network costs.

Step 4 – Network Costs

This step should set out the capital costs relating to the cost of materials and ancillary of deploying the Network including but not limited to the following:

- Ducts;
- Sub-ducts;
- Poles;
- Dark Fibre;
- Towers;
- Buildings;
- Cables and splices/joints;
- Antennae;
- Underground chambers;
- Active Network equipment;
- UWG, OSS/BSS and Network Maps;
- Natural disaster;
- Project management;
- Contingency;
- Labour; and
- Other.

This step should set out the operating costs relating to the cost of operation and maintenance of the deployed Network including but not limited to the following:

- Maintenance:
 - Network operations;
 - Project management;



- Level 2 maintenance;
- Reactive maintenance;
- Seasonal maintenance;
- Proactive maintenance;
- Vendor maintenance;
- Field staff; and
- Other maintenance
- Rental costs (for both passive and active infrastructure):
 - Overhead rental costs;
 - Underground rental costs;
 - Fleet rental costs;
 - Exchange colocation rental costs
 - Backhaul rental costs (if applicable)
- Other

Other specific requirements are categorised and are described in detail in the following sections. The descriptions cover capital and operating costs.

Step 5 – Project Financial Model

The Bidder should ensure that the cost information required in the Project Cost Model on each of the categories and the components within them is completed and this forms the input for the Project Financial Model. Each Bidder should develop its Project Cost Model to easily and clearly illustrate the Connection between its Project Cost Model, and the following sheets within the Project Financial Model:

- 'BOM Distribution Part Wireline (2)';
- 'BOM Distribution Part Wireless (2)';
- 'BOM Backhaul (3)';
- 'BOM Interconnect National Back (4)';
- 'BOM UWG OSS BSS (5)';
- 'BOM Drop Connection Wireless (1)';
- 'BOM Drop Connection Wireline (1)'; and
- 'BOM New Premises Capex to Connect'.

4.4.1 Solution Components

The Project Cost Model should detail the Bidder's Solution Components.

For each Solution Component, the Cost Model should set out, as a minimum:

- Solution Component descriptions;
- Solution Component basis for unit measurement of cost (per meter, per cabinet etc.);
- Solution Component capital costs per unit;
- Solution Component operating cost per unit;
- Sub-Solution Component's eligibility for public sector subsidy;



- Description of circumstances where the capital and/or operating cost of the Solution Component would be expected to vary from values presented i.e. an explanation of the cost drivers for the Solution Component;
- Capital cost inflation forecasts;
- Operating cost inflation forecasts;
- Name of supplier providing the Solution Component (or if not identified at the time of submission, labelled as such); and
- The Bidder's solution should be broken into the categories shown in table 4.1.

4.4.2 Descriptions of Categories 1 to 5

Category 1: Drop Connection Part for a Wireline Network (this is part of Access Network).

Wireline Category	Category name	From (interface point)	To (interface point)
1	Drop Connection part	UNI interface on the WCPE in the customer's Premises	Distribution Point (DP)

This is the part of the Network from the distribution point ("DP") to the WCPE (*Wholesale Customer Premise Equipment*) in the End User's Premises. This part of the Network is built on receipt of a product order and can occur during or after the Network build phase. Note that the DP is part of the infrastructure that is deployed during Network build phase. This category includes the cost of all materials and labour required to complete the drop Connection from the distribution point in the Access Network to the electrical interface of the WCPE in the End User's Premises. The drop Connection may contain active components (such as the WCPE and passive components (Passive final drop infrastructure and cables, etc.) Note that this does not include the cost of provision or installation of the Residential Gateway ("RGW") as this is the responsibility of the appropriate Retail Service Provider (RSP).

Materials Include:

Material costs; WCPE and all overhead or underground cables, ducts, sub-ducts, poles, fixtures and fittings that are required to establish a physical Connection between the port of the distribution point in the NBPco's Access Network and the UNI interface on the WCPE in the End User's Premises. The cost of the distribution point materials is not included in the category but the cost of the physical Connection to the distribution point should be included. Cost of any materials likely to be consumed by preventative and reactive maintenance during the life of the Connection should be provided. Replacement and upgrade costs over the term of the Contract should be provided.

Labour includes:

Installation costs; All of the labour costs to install test and commission the physical drop Connection from the port of the distribution point in the NBPco's Access Network and the UNI interface on the WCPE in the End User's Premises. This includes trenching of duct or sub-duct (where required). This also includes rodding and roping of ducts or sub-ducts, clearing of blockages, installing the underground cable in the duct or installing and aerial drop cable, drilling and making good of the End User's Premises to allow the physical Connection to the Premises, installing and testing any WCPE in the End User's Premises and ensuring that the Wholesale Product as ordered is active as far as the UNI (the RSP Connection interface on the WCPE in the End User's Premises) of the WCPE.

Other operating expenditure includes:

Any charges (Year 1 – Year 25) associated with rental of infrastructure to facilitate the drop Connection preventative and reactive maintenance charges



Category 2: Distribution Network Part for a Wireline Network (Access Network).

Wireline Category		Category name	From (interface point)	To (interface point)
2		Distribution part	Distribution Point	First point of active aggregation (POA)

This is the portion of the Access Network from the distribution point adjacent to a Premise or cluster of Premises and the first point of aggregation in the NBPCo Network. This category includes the cost of all materials and labour required to complete the passive Network from the distribution point in the Access Network to the input of the active equipment located in the first point of active aggregation.

Materials Include:

Materials costs; all passive overhead or underground cables, ducts, sub-ducts, poles, splice enclosures/splitters chambers, optical distribution frames, main distribution frame, internal cables, racking, cable management systems, patch cords, fixtures and fittings/ cable trays / struts that are required to establish a physical Connection between the interface of the distribution point in the NBPCo's Access Network and all relevant interface Connection(s) on active equipment in the first point of active aggregation.

This includes costs of all active equipment including the active equipment, racking, AC and DC power equipment, batteries, rectifiers, air conditioning, fire suppression equipment in the first point of active aggregation. Cost of any materials likely to be consumed by preventative and reactive maintenance during the life of the Connection active at exchange. Replacement and upgrade costs over the term of the Contract should be provided.

Labour includes:

Installation costs; All of the labour costs to install, test and commission the passive and active portions of the distribution Network from the port of the distribution point in the NBPCo's Access Network to the input in the first point of active aggregation. This includes trenching of duct or sub-duct (where required), box builds where required, license / way-leave applications management, traffic management plans, rodding and roping of ducts or sub-ducts, clearing of blockages installing sub-ducting, installing underground cable in the duct or sub-duct or installing and aerial cable, splicing, splice testing, end to end commissioning, , recording the location of assets by means of a suitable GPS system, installing and testing equipment in in the first point of active aggregation.

Operating expenditure includes:

Any charges (Year 1 – Year 25) associated with rental of infrastructure to facilitate the distribution Network part; preventative and reactive maintenance charges

Category 1 and 2: Drop Connection to First Point of Aggregation for a Wireless Network (this is part of Access Network).

Wireless Category	Category name	From (interface point)	To (interface point)
1 and 2	Drop Connection part	UNI interface of WCPE at the End User Premises	Interface point on the radio base station (RBS) equipment at the mast

This is the part of the Network from the interface point on the radio base station ("RBS") equipment (at the mast) to the NBPCo's WCPE (*Wholesale Customer Premise Equipment*) in the End User's Premises. This part of the Network is built on receipt of a product order and can occur during or after the Network build phase. Note that the mast and radio access equipment including antennas on the



most are part of the infrastructure that is deployed during Network build phase. This category includes the cost of all materials and labour required to complete the drop Connection from the RBS in the Access Network to the electrical output of the WCPE in the End User's Premises. The drop Connection may contain active components WCPE and passive components (local antenna, cables, mounting brackets, etc.). Note that this does not include the cost of provision or installation of the Residential Gateway as this is the responsibility of the appropriate RSP.

Materials Include:

Materials costs; WCPE and all aerial/antenna as well as fixtures and fittings, overhead or underground cables, ducts, sub-ducts, poles, fixtures and fittings that are required to establish a physical Connection between the interface of the radio base station in the NBPco's Access Network and the RSP Connection interface on the WCPE in the End User's Premises. Cost of any materials likely to be consumed by preventative and reactive maintenance during the life of the Connection should be provided. Replacement and upgrade costs over the term of the Contract should be provided.

Labour includes:

Installation costs; All of the labour costs to install test and commission the drop Connection from the interface of the RBS in the NBPco's Access Network and the RSP Connection interface on the WCPE in the End User's Premises. This includes erecting an antenna or aerial at the End User's Premises as well as any cabling, trenching of duct or sub-duct (where required), rodding and roping of ducts or sub-ducts, clearing of blockages, installing the underground cable in the duct or installing and aerial drop cable, drilling and making good of the End User's Premises to allow the physical Connection to the Premises, installing and testing any WCPE in the End User's Premises and ensuring that the Wholesale Product as ordered is active as far as the output port (the RSP Connection interface on the WCPE in the End User's Premises).

Other operating expenditure includes:

Any charges (Year 1 – Year 25) associated with rental of infrastructure to facilitate the drop Connection preventative and reactive maintenance charges

Category 3: Backhaul Part for a Wireline/Wireless Network (Metro¹⁴ Backhaul Network from the first point of active aggregation to the PoH).

Wireline/Wireless Category	Category name	From (interface point)	To (interface point)
3	Backhaul part	First point of active aggregation	Point of Handover interface (NNI)

This is the portion of the NBPco Network that constitutes the metro backhaul from the optical/electrical output interface OLT or equivalent equipment in the first point of active aggregation to the optical/electrical interface on the RSP-facing side of the active equipment in the Point of Handover in the NBPco Network. This category includes the cost of all materials and labour required to complete the active and passive Network from the optical output port of the equipment located in the first point of active aggregation to the RSP-facing side of the active equipment in the Point of Handover in the NBPco Network (NNI).

¹⁴ metro backhaul refers to the backhaul from the first point of active aggregation to the Point of Handover (NNI)



Materials Include:

Material costs; all passive overhead or underground cables, ducts, sub-ducts, poles, towers splice enclosures, chambers, optical distribution frames, internal cables, racking, cable management systems, patch cords, fixtures and fittings that are required to establish a physical Connection between the output port of the active equipment (facing Point of Handover) located in the first point of active aggregation to the RSP-facing side of the active equipment in the Point of Handover in the NBPco Network.

All active equipment including the active equipment in the first point of active aggregation, switches, routers, wireless and wireline-based transmission equipment, racking, AC and DC power equipment, batteries, rectifiers, air conditioning, fire suppression equipment in the first point of active aggregation. Cost of any materials likely to be consumed by preventative and reactive maintenance during the life of the Connection should be provided. Replacement and upgrade costs over the term of the Contract should be provided.

Labour includes:

Installation costs; All of the labour costs to install, test and commission the passive and active portions of the backhaul Network from the interface of the output port of the active equipment (Point of Handover side) in the first point of active aggregation to the RSP-facing side of the active equipment in the Point of Handover in the NBPco Network.

This includes trenching of duct or sub-duct (where required), box builds (where required), license / way-leave applications management, traffic management plans, rodding and roping of ducts or sub-ducts, clearing of blockages, installing sub-ducting, installing underground cable in the duct or sub-duct or installing and aerial cable, splicing, splice testing, end to end commissioning, logging and recording of splice and insertion loss data, recording the location of assets by means of a suitable GPS system, installing and testing any OLT or equivalent equipment in the first point of active aggregation.

Operating expenditure includes:

Any charges (Year 1 – Year 25) associated with rental of infrastructure; poles, ducts, sub-ducts, dark fibre, bandwidth products, co-location space, power, etc. to facilitate the Backhaul Network part; preventative and reactive maintenance charges.

Category 4: Interconnect/National Backhaul Part for a Wireline/Wireless Network (Interconnect).

Wireline/Wireless Category	Category name	From (interface point)	To (interface point)
4	Interconnect/National Backhaul part	Point of Handover interface point (NNI)	RSP Network interface point or another Point of Handover interface point (NNI) as per Network Design requirements

This is the portion of the NBPco Network that constitutes the Connection between the Point of Handover in the NBPco's Network and the RSP's or WSP's network (Interconnect) or the Connection between two or more POHs (National Backhaul). The Point of Handover is the point where the NBPco provides aggregated traffic from their Network to RSPs or WSPs. This equates to the point where RSPs or WSPs or NBPco will connect to the NBP wholesale Network. The RSPs or WSPs may utilise their own infrastructure to provide their portion of the network from the RSP or WSP network as far as the NBPco's Point of Handover or may request the NBPco to build the interconnect from the Point of Handover (at the RSP's or WSP's cost as per the appropriate Reference Offer) to the End User Premises.



This is from the optical/electrical output interface on the NBPco's equipment in the Point of Handover in the NBPco Network to the optical/electrical output interface on the RSP's or WSP's equipment (in Point of Handover or RSP/WSP facility). The Connection can be a physical Connection in several forms including; third-party Premises interconnect, in-building Premises interconnect or in-span interconnect product (as defined in the Reference Offer) or National Backhaul.

This category includes the cost of all materials and labour required to complete the active and passive network from the optical/electrical output of the RSP-facing NBPco Network equipment in the Point of Handover to the optical/electrical input of the RSP's or WSP's network in the Point of Handover in the NBPco Network. This category also includes National Backhaul Connections between the optical/electrical output of the RSP's or WSP's Network equipment in one Point of Handover to the optical/electrical input of the RSP's or WSP's network in another Point of Handover where the Connection is made by means of the NBPco Network

Materials Include:

Material costs; all passive overhead or underground cables, ducts, sub-ducts, poles, splice enclosures, chambers, optical distribution frames, internal cables, racking, cable management systems, patch cords, fixtures and fittings that are required to establish a physical Connection between the optical/electrical output interface of the RSP-facing NBPco Network equipment in the Point of Handover to the optical/electrical input of the RSP's network in the Point of Handover or in the RSP's network facility, depending on the type of network – Network interface (NNI) provided.

All active equipment including switches, routers, transmission equipment, racking, AC and DC power equipment, batteries, rectifiers, air conditioning, fire suppression equipment in the first point of active aggregation. Cost of any materials likely to be consumed by preventative and reactive maintenance during the life of the Connection should be provided. Replacement and upgrade costs over the term of the Contract should be provided.

Labour Includes:

Installation costs; All of the labour costs to install, test and commission the passive and active portions of the distribution Network from the interface of the distribution point in the NBPco's Access Network to the optical input of the OLT (or equivalent) in the first point of active aggregation. This includes trenching of duct or sub-duct (where required), rodding and roping of ducts or sub-ducts, clearing of blockages, installing sub-ducting, installing underground cable in the duct or sub-duct or installing and aerial cable, splicing, splice testing, end to end commissioning, logging and recording of splice and insertion loss data, recording the location of assets by means of a suitable GPS system, installing and testing any active equipment in Point of Handover.

Operating Expenditure Includes:

Any charges (Year 1 – Year 25) associated with rental of infrastructure (both rental and passive); poles, ducts, sub-ducts, dark fibre, bandwidth Products, co-location space, power, etc. to facilitate the Interconnect part; preventative and reactive maintenance charges

Category 5: Operational Environment

Wireline/Wireless Category	Category name	From (interface point)	To (interface point)
5	UWG and OSS/BSS systems	N/A	N/A

This is the portion of the NBPco Network that constitutes the Operational Environment support system infrastructure that will be required to deliver the requirements as outlined in Schedule 2.1.



This category includes the cost of all systems, software, hardware, materials and labour required to complete the functions as set out in the Operational Performance.

Replacement and upgrade costs over the term of the Contract should be provided.

4.5 Guidance on Assets

The Department requests the Bidder to clearly identify:

- The volumes of new Assets, replacement Assets and rented Assets, and associated volumes split between those proposed to be owned by NBPco and those to be owned by Key Subcontractors split between those proposed to be owned by NBPco and those to be owned by Key Subcontractors;
- With respect to replacement or existing Assets, the Bidders' solutions to rent or buy where there is a) the replacement of a large quantity of Network Assets and b) the replacement of isolated Network Assets;
- Where Assets are rented, how these assets reconcile to the Infrastructure Access Agreements and associated rental price structures; and
- The costs and assumptions in relation to the assets of NBPco should be fully reflected in the Project Cost Model and the Project Financial Model.



5 Project Price Book and Appendix 1, Schedule 5.2

5.1 Purpose

Each Bidder must include within their submission a "Project Price Book". The template for this Project Price Book is included in the 'green' tabbed worksheets in the PFMT. Bidders must also complete the template for Appendix 1 of Schedule 5.2 (Wholesale Prices, Price Benchmarking Rules and Wholesale Product Benchmarking Rules) of the Contract included as the 'yellow' tabbed worksheet labelled "Sch 5.2_App1". The purpose of the Project Price Book and Sch 5.2_App1 is to identify the full suite of Wholesale Products that the Bidder forecasts as sources of revenue in the Project Financial Model and to illustrate the assumptions and benchmarks for its proposed Wholesale Product Prices. Sch 5.2_App 1 should be consistent with the Bidders proposed Wholesale Prices set out in the remainder of the Project Price Book. Sch 5.2_App 1 will form Appendix 1 of Schedule 5.2 (Wholesale Prices, Price Benchmarking Rules and Wholesale Product Benchmarking Rules).

The Project Price Book must also incorporate forecast Wholesale Product Prices for the full 25 year Contract Period. As set out in Schedule 5.2, the Benchmark Reference Prices and Initial Connection Charges will be indexed annually in accordance with actual movements of the European Union Harmonised Index of Consumer Prices subject to a floor of 0%. For the purpose of the ISFT evaluation, all Bidders are required to assume an annual indexation rate of 1.5% per annum for the first five years and 2% per annum thereafter for the purposes of the Adjusted Inflation Benchmark Reference Prices and the Adjusted Inflation Initial Connection Charges. Bidders are required to include in their PFMT the proportion of Benchmark Reference Prices and Initial Connection Charges which are subject to indexation (PSI_{BRP}). This should be input to cell E54 in the 'General inputs' worksheet.

All assumptions utilised within the Project Price Book and Sch 5.2_App1 that are not outlined or explained clearly within the sheets of the Project Price Book and Sch 5.2_App1 must be explained in the Financial Memorandum. Examples of assumptions that may not be explained fully in the Project Price Book are details in relation to the evolution of products over time and inflation.

Volume 3, Schedule 2.1 (Technical Solution Specification) details three different groups of Wholesale Products to be offered by the Bidder.

The onus will be on the Bidder to demonstrate to the Department's satisfaction that the pricing of its Wholesale Products satisfies the Wholesale Pricing Rules as set out in Schedule 5.2 (Wholesale Prices, Price Benchmarking Rules and Wholesale Product Benchmarking Rules).

Bidders should note that the Project Price Book and Sch 5.2_App1 will be considered by the Department in accordance with the Evaluation Methodology as appropriate, including:

- section 3.4.3.1 and section 3.4.3.2 of ISFT Volume 2 (Evaluation Methodology) with respect to the Minimum Bitstream Wholesale Product and, if applicable, the Alternative Bitstream Wholesale Product; and
- section 6.3 of ISFT Volume 2 (Evaluation Methodology).

The pricing principles described above are reliant on Government having full transparency of the costs of providing the wholesale Network and services.



5.2 General Requirements

The Wholesale Prices contained in the Project Price Book and Sch 5.2_App1 are the prices that the Bidder proposes for its Wholesale Products, as at the Commencement Date of the Contract and forecast price evolution over the Contract Period.

The Wholesale Prices set out in the Project Price Book and Sch 5.2_App1 must be compliant with the requirements of Schedule 5.2 (Wholesale Prices, Price Benchmarking Rules and Wholesale Product Benchmarking Rules) of the Contract.

The Wholesale Prices are to be reviewed in line with the requirements of Schedule 5.2 (Wholesale Prices, Price Benchmarking Rules and Wholesale Product Benchmarking Rules) and the Evaluation Methodology. For the avoidance of doubt, the Project Financial Model shall not be updated and, other than where specifically allowed for in Schedule 5.1 (Subsidy Payments), the Subsidy Payments shall not be recalculated in respect of any change in Wholesale Prices.

The Project Price Book and Sch 5.2_App1 must therefore set out, as a minimum:

- The Bidder's Wholesale Products, where such products are to be supplied over the Network; and
- The proposed Wholesale Prices for those Wholesale Products (as of the Effective Date of the Contract), which are to be used by the Bidder in calculating its forecast wholesale revenues within the Project Financial Model.

The Wholesale Prices must be expressed in € euro exclusive of VAT.

5.3 Specific Requirements

Within the Financial Memorandum, Bidders must provide information on the underlying assumptions set out in the Project Price Book and Sch 5.2_App1. This includes:

- Wholesale Product descriptions: This should be based on the requirements set out in Schedule 2.2 (Reference Offer). The Project Price Book captures the revenue drivers for Wholesale Product revenue driven requirement by a Premises Connection or another driver of a Wholesale Product revenue. The Project Price Book has split out Wholesale Products that are directly related to a High Speed Broadband Connection to a Premise and those which are indirectly related to the provision of a High Speed Broadband Connection to a Premise.

For the avoidance of doubt, the Minimum VUA Wholesale Product, or any of its variants, are assumed to be directly related to a High Speed Broadband Connection to a Premise. The Project Price Book therefore assumes that Wholesale Products such as the Duct Access Product, the Pole Access Product, the Dark Fibre Product, the Radio Tower and Mast Access product, the Interconnect Product, Transmission and Other Permitted Wholesale Products are not directly related to a High Speed Broadband Connection to a Premises, but may form a component part of providing High Speed Broadband Product or may be an Other Permitted Wholesale Product.

Where the Bidder is proposing to provide an additional service to a High Speed Broadband Connection this should be identified and should not be considered as another Premises Connection, but an additional revenue stream associated with that Premises Connection. For example, where a Bidder is proposing a wholesale voice product in addition to a Bitstream Product, the Premises Connection for that Bitstream Product should be recognised under take-up as a Premises Connected and the wholesale voice product revenue should be captured in the Indirect Subscriber Base worksheet;

- Forecast Take-Up for each Wholesale Product, as well as all assumptions associated with revenue derived from off Network and on Network churn;
- Description of circumstances where the stated Wholesale Price would be expected to vary from the values presented, i.e. an explanation of the cost drivers for the Wholesale Product;



- The inflation factor (PSI_{BPP}) (if any) applicable to the definition of the Adjusted Inflation Benchmark Reference Price and Adjusted Inflation Initial Connection Charge (which shall apply in the Project Financial Model); and
- If Bidders specify Other Permitted Wholesale Products, they commit to offering these and, if requested, supplying these products (unless they are specifically identified as a non-committed product). Bidders may also include potential products over the 25-year term of the contract for Other Permitted Wholesale Products, which they do not commit to offering and supplying, where Bidders anticipate they will generate revenue. Bidders do not have to commit to offer these 'non-committed' products. Bidders need to clearly identify these 'non-committed' products in their Project Price Book. If Bidders do not commit to offering these products, the products will not be considered in the technical evaluation of Other Permitted Wholesale Products.

Within the PFMT, the Project Price Book must also set out for each Wholesale Product, the proposed and forecast Wholesale Prices based on requirements set out in Schedule 5.2 (Wholesale Prices, Price Benchmarking Rules and Wholesale Product Benchmarking Rules). This includes:

- Proposed wholesale monthly rental price for each Wholesale Product;
- Proposed Initial Connection Charges for Existing Premises for each direct subscriber based Wholesale Product and any sub product of the direct subscriber based Wholesale Product;
- Proposed Initial Connection Charges and the Adjusted Inflation Initial Connection Charges for New Premises for each direct subscriber based Wholesale Product and any sub product of the direct subscriber based Wholesale Product.
- Proposed churn on-net charge for each direct subscriber based Wholesale Product and any sub product of the direct subscriber based Wholesale Product;
- Proposed disconnection charge for each direct subscriber based Wholesale Product and any sub product of the direct subscriber based Wholesale Product;
- Proposed reconnection charge for each direct subscriber based Wholesale Product and any sub product of the direct subscriber based Wholesale Product.

The Project Price Book also incorporates an 'Indirect Subscriber Base' worksheet. This is where Bidders may capture proposed Wholesale Product revenues not directly related to a High Speed Broadband Connection to a premise, and which may have a more complex product and/or pricing structure (e.g. wholesale leased line).

Each Bidder must complete the Project Price Book sheets included in the PFMT in Annex A to this Volume 4 for each Wholesale Product included in its proposed solution, where appropriate guidance has been provided on the relevant reference offer.

Any additional commentary to support the pricing assumptions used in the PFMT should also be included in the Financial Memorandum.



6 Financial Memorandum – Project Financial Model

6.1 Purpose

The purpose of the Financial Memorandum for the Project Financial Model is to support and explain aspects of the Bidder's proposal. Each Bidder should utilise the Financial Memorandum to add further clarity to any assumptions that they are making in the Project Financial Model and to highlight any additional aspects of their submission that may not be readily apparent from the submission of the Project Financial Model.

6.2 General Requirements

The Project Financial Model Financial Memorandum should be submitted in word format with a table of contents to clearly distinguish where each specific requirement of the Financial Memorandum (listed below) is dealt with. All specific requirements outlined below should be responded to comprehensively by the Bidder.

6.3 Specific Requirements

The Financial Memorandum must provide significantly more detail about the build-up of costs, revenues and other inputs in the Project Financial Model, than would be apparent from the excel version of the PFM alone.

Required contents for the Financial Memorandum are set out below:

- Each Bidder must provide an overview of its sources and uses of financing and funding.
- Each Bidder must provide the results of the sensitivity analysis as detailed in section 2.5 above, including cost behaviours and outputs from each sensitivity. Each Bidder should also provide the results of any other sensitivities that are deemed critical to its own forecasting process.
- Each Bidder must provide details of all product assumptions that inform the revenue calculations in the Project Financial Model, in line with the requirements of section 5.3. This should include assumptions regarding revenue derived from the Wholesale Products as well as revenue generated (wholly or partly) from NBPco Assets or other assets that, in whole or in part, form part of the Project Costs. Where revenues are incremental, the basis for the determination of the incremental amount should be clearly detailed. For the avoidance of doubt, this should include product and revenue apportionment assumptions (as applicable) where:
 - Wholesale Products that form part of the Contract are bundled with products provided within the Intervention Area which are not Wholesale Products; and/or
 - Products are to be provided by NBPco outside the Intervention Area on the back of the subsidised transit network.
- Where a Bidder assumes contingency in its Project Financial Model, the Bidder should clearly specify the amount of contingency that is assumed and the basis for assuming this level of contingency.
- Each Bidder must provide an explanation of its customer Take-Up assumptions including the timing of Take Up with regard to the timing of the overall deployment as well as assumptions for off Network churn and on Network churn i.e. of customers across Wholesale Products or Retail Service Providers.
- Each Bidder must additionally explain clearly its addressable market growth assumptions in order to illustrate the number of New Premises that a Bidder is forecasting to be built in the Intervention Area over the term of the Contract.



- Each Bidder must provide clear details in reference to its taxation and capital allowances assumptions including an assertion that assets are qualifying for capital allowance purposes where relevant and what timeframe allowances are provided for. Non-qualifying assets should also be separately identified by each Bidder. Where the Bidder expects that there will be a replacement of assets that qualify for capital allowances in advance of the end of the useful life of such assets, assumptions should be outlined to provide the approach being taken for capital allowance purposes, i.e. will 'Option in case of replacement' be availed of per Section 290 TCA 1997 or will a balancing allowance / charge be recognised.
- The extent to which NBPco is expected to incur interest or dividend withholding tax and the basis for this.
- Each Bidder should outline what its assumptions are for recognising unused tax losses as deferred tax assets on the balance sheet. The Project Financial Model currently assumes that Bidders will recognise a deferred tax asset for any losses that are incurred during the start-up years of the project; as such, losses incurred will be recoverable against future trading profits.
- Each Bidder must provide details of any tax losses to be used by other group / Consortium Members and expected payments for same (if any);
- Each Bidder should specify the accounting and tax treatment as well as the timing of taxation of Subsidy Payments that they are projecting within the Project Financial Model.
- Each Bidder must clearly specify their VAT assumptions (input and output) within the financial model; RCT assumptions - following a submission the Revenue Commissioners have advised that the proposed contract is a relevant contract for the purposes of Section 530 TCA 1997 and related provisions. Consequently, the Department will apply the relevant contracts tax legislation to all payments to be made to the NBPco. Each Bidder should also take this into account when considering the VAT treatment of any products/transactions.
- Each Bidder must provide an explanation for any strategic value assumptions that it is making in the Project Financial Model and specify clearly the underlying calculations including where they are accounted for in the Project Financial Model.
- Bidders must also provide details of the step by step optimisation procedure for their financial model including any constraints imposed by funders on results of downside sensitivities. References to the relevant cells and worksheets in the financial model underpinning the Bidder's Final Tender should also be provided.
- If applicable to their Funding Plan, Bidders must detail how (including specific worksheet and cell references) the Project Financial Model will be adjusted if commercial debt reference interest rate(s) change between the date of the ISFT submission and financial close.



7 Cost Memorandum – Project Cost Model

7.1 Purpose

The purpose of the Cost Memorandum is to support and explain aspects of the Bidder's proposal. Bidders should utilise the Cost Memorandum to add further clarity to any assumptions that they are making in the Project Cost Model and to highlight any additional aspects of their submission that may not be readily apparent from the submission of the Project Cost Model.

7.2 General Requirements

The Cost Memorandum should be submitted in PDF format with a table of contents to clearly distinguish where each specific requirement of the Cost Memorandum (listed below) is dealt with. All specific requirements outlined below should be responded to comprehensively by the Bidder.

7.3 Specific Requirements

In addition to the completion of the Project Cost Model, the Bidder must provide a Cost Memorandum to support and explain aspects of its proposal.

The Cost Memorandum should include:

- details of geospatial databases used (e.g. GeoDirectory, OSI, etc.);
- details on algorithms used in Network dimensioning;
- Network dimensioning assumptions including:
 - Premises within the Intervention Area, incorporating forecast Take-Up;
 - The Network design based on the technical solution requirements set out in schedule 2.1;
 - The Network volumes (lengths of Network, number of base stations, etc.) required to Pass and Connect those Premises;
 - The Network equipment required (to include all passive and active);
 - Asset life assumptions;
 - The engineering rules applied, including types of cable required, number of user per base station, etc.;
 - Assumptions around the re-use of infrastructure;
 - Assumptions around infrastructure access (both passive and active), including:
 - what infrastructure the Bidder plans to rent or lease;
 - who owns the infrastructure required by the Bidder;
 - where not covered by a Contract Assumption, what the monthly/annual rent of the infrastructure is and, in the case of infrastructure that is owned by an entity in the same economic group, details of how prices were arrived at; and
 - what rental agreements they have in place.
- Network costing assumptions
 - Deployment assumptions of the Network based on the requirements of Schedule 2.3;
 - The unit cost of materials and labour based on Network dimensioning outputs above. This should include inflation assumptions by asset type (materials) and by labour;
 - Operating cost of the Network including operating expenditure, maintenance expenditure and rental operating cost;



- This should include all operating cost inflations assumptions;
- This should include all assumptions with respect to third party rentals including poles, ducts, masts and other applicable third party costs;
- All assumptions in relation to design, project management and contingencies.



Appendix 1 Network diagram

